Keyboard

The EDDIE JOBSON Interview

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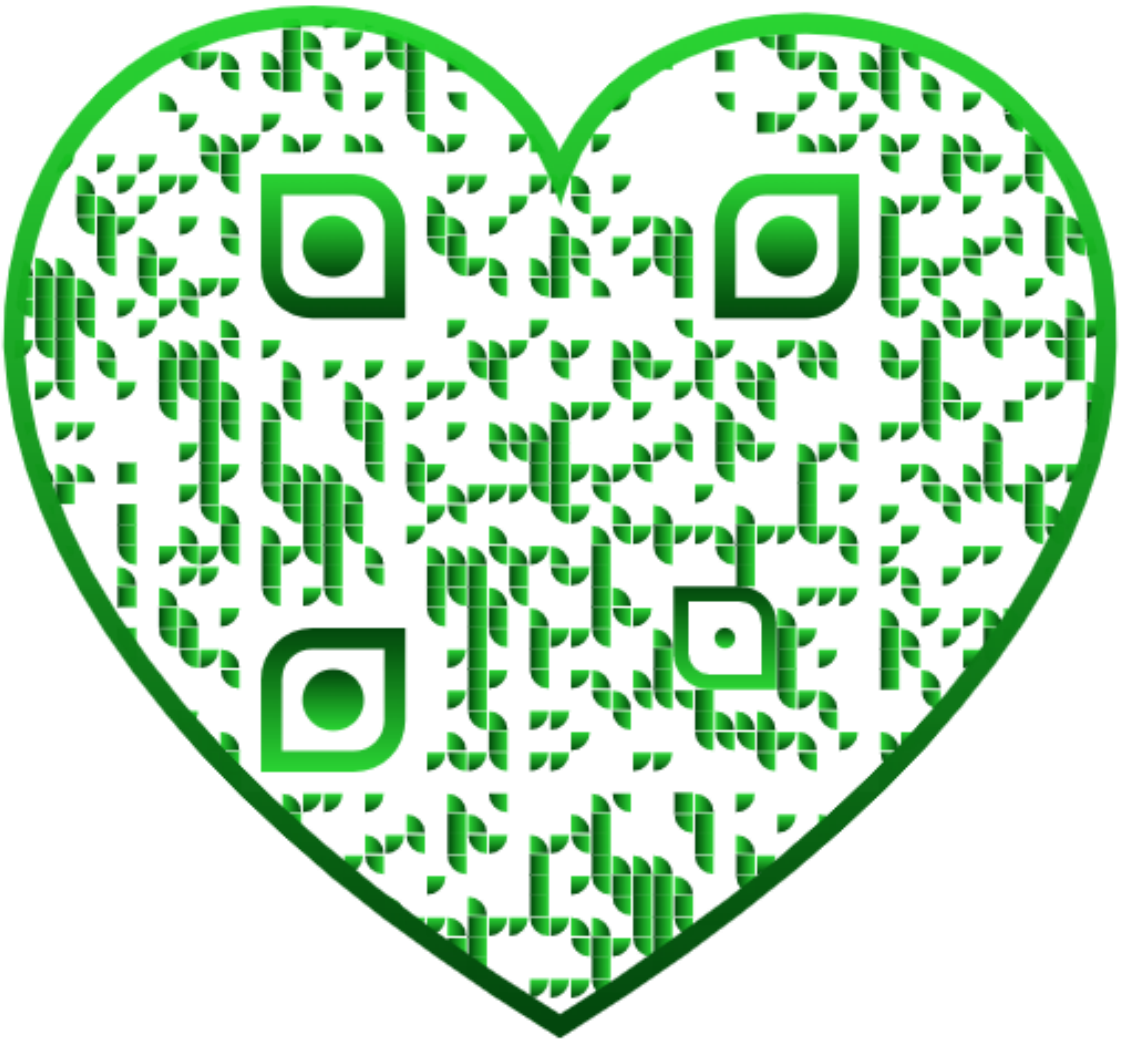

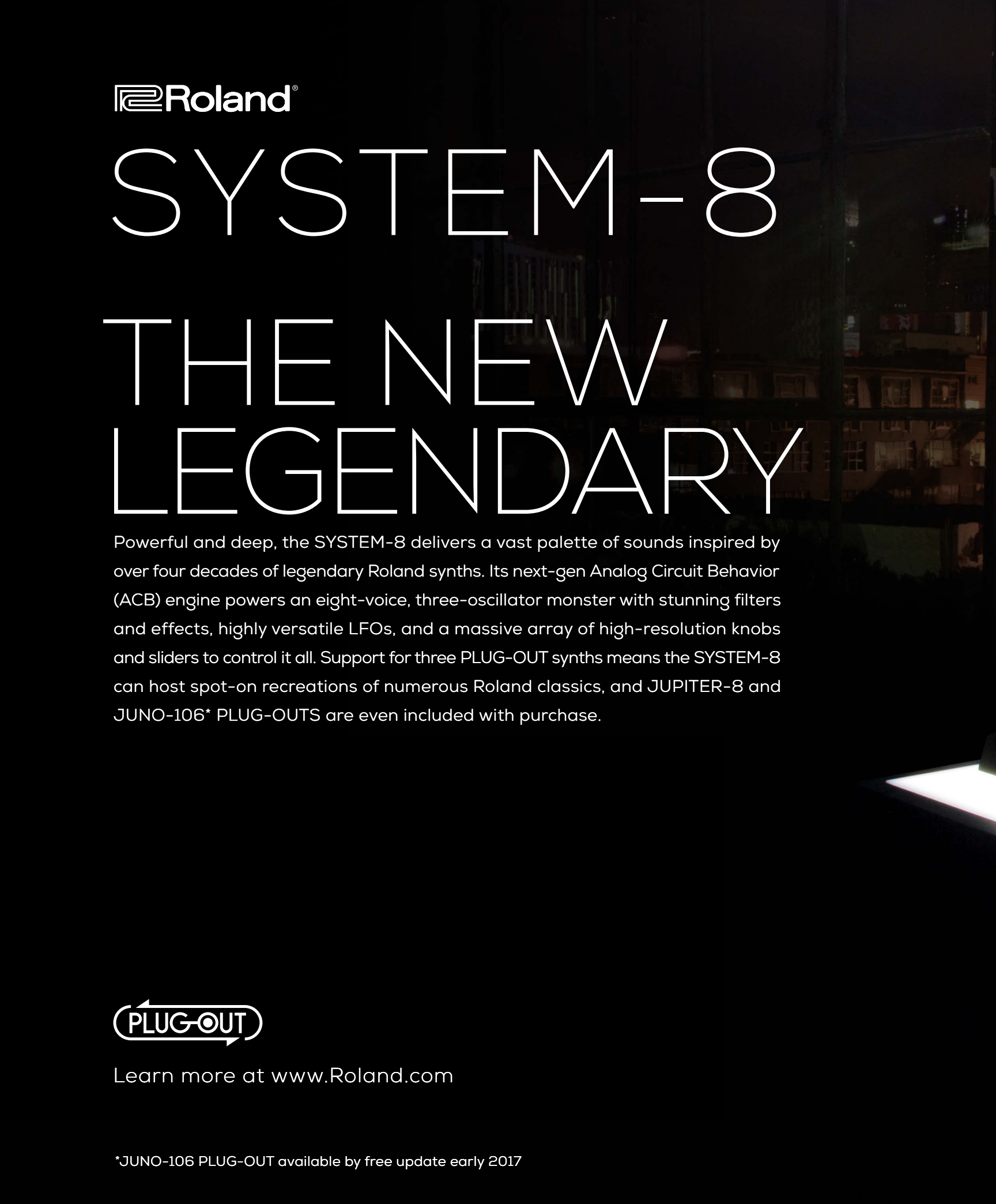

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Read our report from the Official Keith Emerson Tribute Concert, which featured Eddie Jobson, Steve Lukather, Steve Porcaro, and many more.

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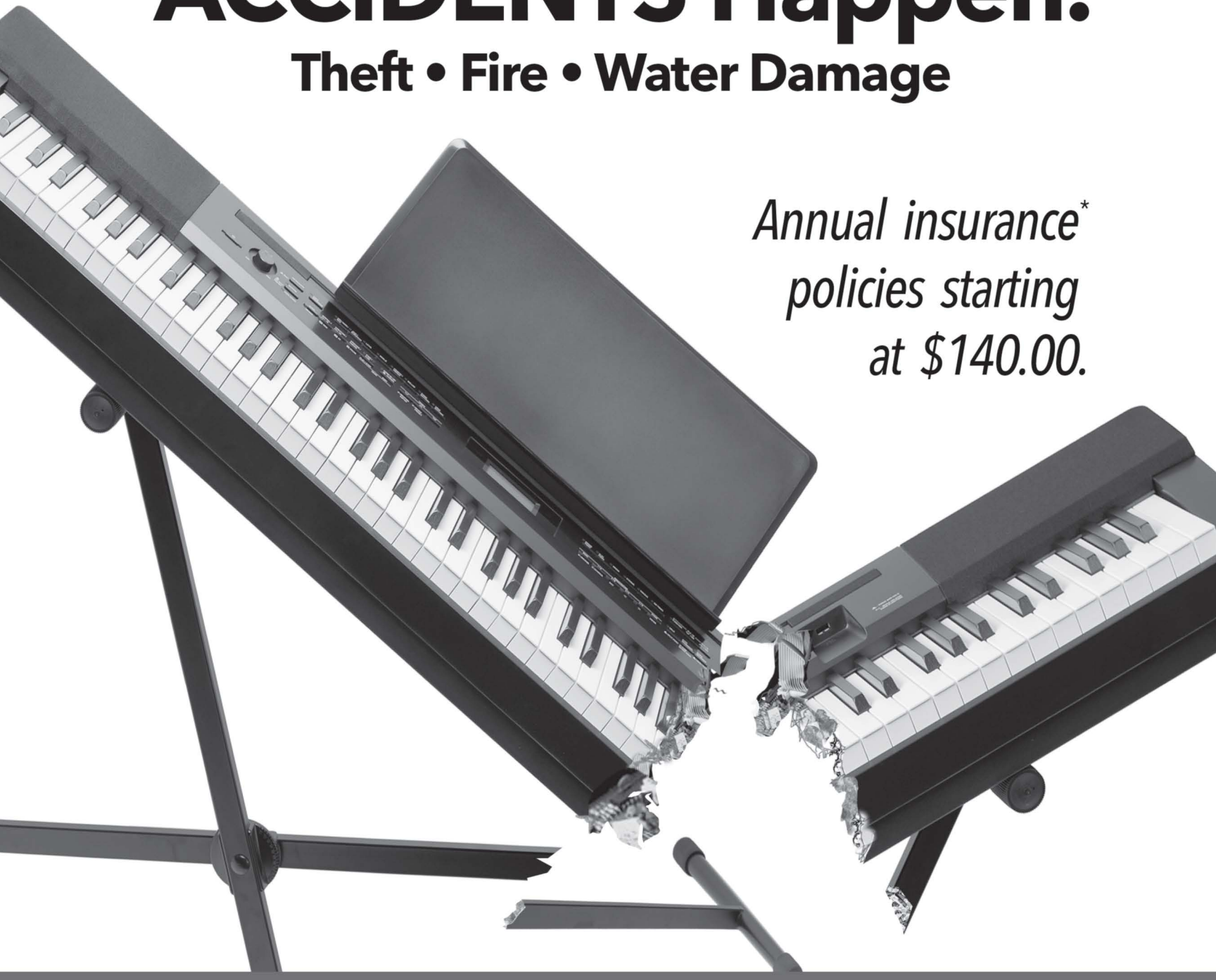

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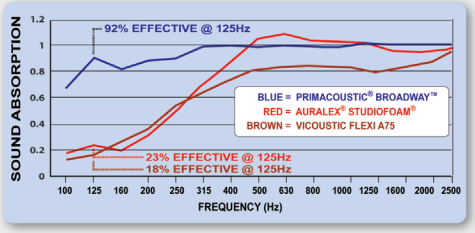

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TALK

Editor's Note

For many, a major benefit of playing music is the communal aspect that it fosters. But you don't have to be in a band or go to an open-mic night to experience it. Gear-related shows, music-store events, and workshops are great places to meet and hang with people who have interests similar to yours. For example, I've enjoyed getting to know the community of modular synth users—first locally, then globally through social media. Over the past two decades, attendance at synth gatherings has risen to the point where some have become national and international events (Knobcon in Chicago and Superbooth in Berlin, respectively) that attract musicians and manufacturers, alike. And more than simply providing a place to geek out on new gear, they increasingly include classes and concerts.

But there are other ways to connect with like-minded musicians. I was recently invited to teach a workshop at the Synth Library in Portland, Oregon. Volunteer-run in partnership with S1 and 4MS Company, Synth Library provides learning opportunities for every level of interest. You will also find a modular synth at the Lawrence Public Library in Lawrence, Kansas, where community members can access the instrument for study and recording.

All of these began as grass-roots efforts supported by enthusiastic people who were interested in fostering communication and creating educational opportunities. If these types of resources are unavailable in your area, consider starting something that fills a need in your community and that you would enjoy working on. As with many things in life, the more you give, the more you get in return.

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Gino Robair
Editor in Chief

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Chick Corea: Learning from Recordings

In his column "Keyboards & Music" in the December 1976 issue of *Contemporary Keyboard*, **Chick Corea** described the benefits of learning and transcribing music from recordings. "I think you'll find that once you yourself have traced down a melody note for note off of a recording, and in the process have gone over and over and over that melody, you'll really begin to grasp the mechanism which is at the basis of 'hearing' melody lines. (Of course, this applies to harmonies and rhythms, as well.) The idea is that you learn something by copying exactly the ways it's done, until you make that particular technique your own, at which time you can apply it toward your own creations.

"The idea of making it your own is quite interesting. This partly involves a real willingness to create different being-nesses, different personalities and emotions. It's very similar to the ability actors need. Of course, when this is done causatively, there's no loss of one's own identity. When it's not being done causatively, however, then one is not being oneself.

"In the field of music, we have a vast reservoir of knowledge documented on recordings. When looked at from the student's point of view, this is an invaluable source of learning. You can almost do a full apprenticeship with an artist who's done a lot of recording just by learning to duplicate the techniques he or she has used on records.

"The trick here is to choose a part of the musical structure you're analyzing that's not more complex than what you're able to copy down. For instance, you might just work on the melody line of the piece, or even just a portion of it. You can take this copying-down sequence on the proper gradient and work up your hearing ability until you'll find you're able to copy down quite complex pieces of music. This process can be very exciting and revealing."

Visit keyboardmag.com to read Corea's column in its entirety.

Key Secrets

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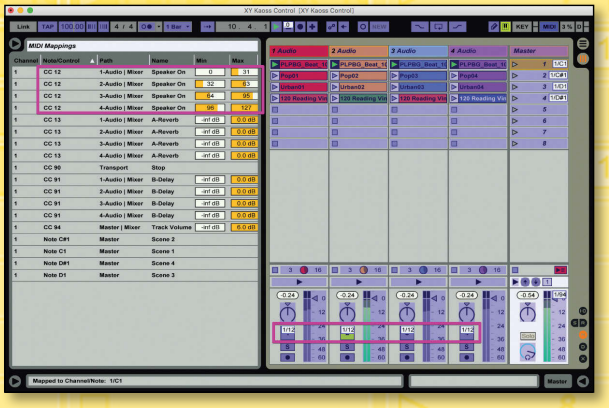

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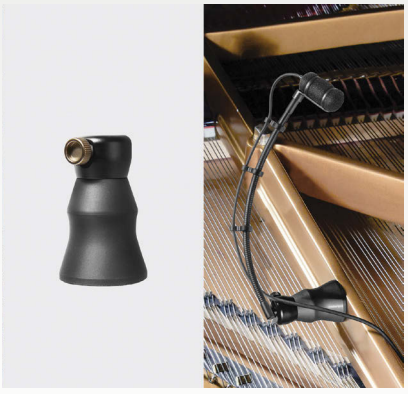

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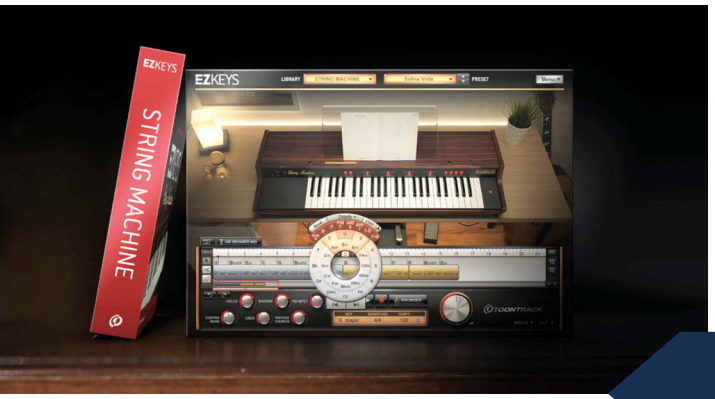

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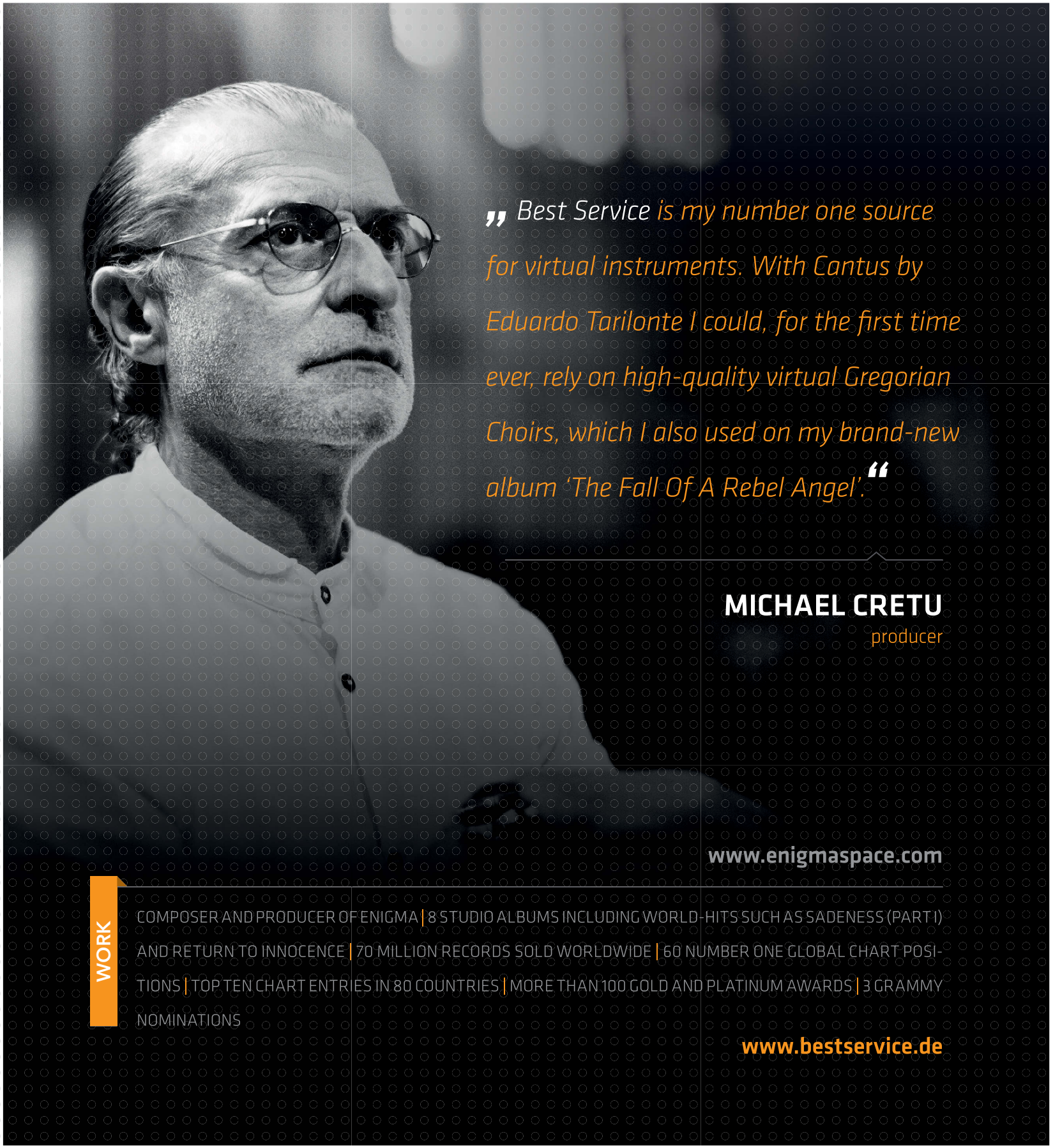

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PRO TECHNICIAN JUSTIN ELLIOTT SAYS THERE'S MORE TO UPKEEP THAN PERIODIC TUNINGS

BY GINO ROBAIR

"WHEN I GO TO A CLIENT'S HOUSE AND PULL OUT THE ACTION THE FIRST TIME, they've often never seen it before," explains piano technician Justin Elliott. "And they've had pianos for 30 years!"

Elliott, along with his wife Jina, run J. Elliott & Co. (jelliottco.com) which offers a range of piano-related services, from tuning to full-on restoration. Earlier this year, the Florida-based firm customized the Yamaha C7X SH for Prince, which became known as the "purple piano." (Read more about it at keyboardmag.com.)

Elliott stresses that there is more to piano care than tuning, so he regularly checks all of the aspects that affect playability. "Most tuners don't want to take the time to voice a client's piano. But that's the most critical part about servicing. It's the feel, the touch that makes all the difference for the player.

"If the client loves the piano much better," Elliott continues, "and they understand how it works, they can play into it because they know the mechanism and its limitations. If they want more out of it, you can help them get it a little bit faster, a little bit stronger; make it more responsive so they can play better."

Elliott found his calling when his parents bought a baby grand piano. "It was terribly out of tune," he notes. "I drove the tuner crazy asking all kinds of questions." The experience, however, sparked his interest, which eventually led to an apprenticeship with the late Susan Graham, a sought-after technician who rebuilt Steinways. "She took me under her wing. I had a little studio and started bringing pianos in for restoration—all kinds of old Steinways and what not."

Graham also had connections to the Yamaha Corporation, which helped the budding tech get into the company's rigorous educational program. The courses included basic piano regulation, Disklavier maintenance and calibration, and two intensive "concert" classes covering hammer replacement, voicing, and concert tuning.

"I went through all their levels of service. I think I was the youngest tech at the time—17 years old. The Japanese technicians didn't really speak English, so it was basically hands-on experience: They'd do it, then I'd do it. It was an eye-opening experience of how, internationally, technicians work on pianos—not just the American way, but the Japanese way—bringing the cultures together to make a different sound."

Based on his extensive experience, I asked Elliott what piano owners should do to get the most out of their instrument. "For the typical home piano, problems come about from age and lack of maintenance. I relate it to car service: the piano tuning is like putting gas in your car; voicing the piano, filing the hammers, doing the regulation—that's like getting your oil changed; changing your hammer felt and rebushing your keys, that's like putting new tires on it. And little things, like using a string-cover when the piano is brand new, make a difference: If you take it off 20 years later, the strings won't have all that dirt, grime and oxidation. Doing all of these maintenance things will increase the longevity of the instrument.

"Realistically, minor regulation should be done after every other tuning visit—an extra half hour to tweak the hammer line and keep them all even. If that doesn't happen, then every two years the tuner should go in and do some light regulation, some voicing, and some prepping. Then every four years, do some key bushings.

"The biggest thing I've found is that artists are interested in the foundation; what the keys feel like. And it's the key bushings—keeping them all aligned. If it has a sloppy foundation, the player doesn't feel confident. But if you keep track of that and make sure its solid and feels good, they know how it's going to move: The keys aren't going to shift around to much for them, and it makes them much happier as an artist coming to the instrument." ♫

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EDDIE JOBSON

CATCHING UP WITH ONE OF PROG-ROCK'S MOST ACCOMPLISHED ARTISTS

BY JERRY KOVARSKY

OVER THE COURSE OF HIS CAREER EDDIE JOBSON HAS MOVED FROM BEING the "boy wonder" who was playing with many of the top British bands in the early-to-mid '70s (Curved Air, Roxy Music, sessions galore), to performing with some of the top acts of the day (Frank Zappa, Jethro Tull, UK), to becoming one of the most capable elder statesmen of progressive music. A telling sign of his stature among musicians was the role he played at the Official Keith Emerson Tribute Concert last May in Los Angeles. The stage was full of amazing players who all had a connection to Keith, but when it came time to close the show with the ELP classic "Lucky Man," it was Eddie who manned a modular Moog to play the iconic synth solo.

BRAD OWEN

Since returning to the stage in 2008 after a 27-year absence, Jobson has teamed up with some of the most ferocious and musically accomplished players around to play the music he was influenced by and loved (U-Z Project), and to revisit his most enduring band, UK (both in the UKZ project, and the official reunion tours). Having just released a definitive 18-disc boxed set of the UK material, Eddie talked with *Keyboard* about his music, his career, his gear, and much more.

Since returning to live performance you have put together projects such as UKZ and U-Z before staging a more official UK reunion tour. What were your goals in forming each of those ensembles?

Well, the idea of UKZ was to form a 'players' band, only with a very contemporary flavor to it. It took quite a while to find musicians of the caliber I was used to playing with in the '70s, and I ended up with a German drummer (Marco Minnemann), an American bassist (Trey Gunn), a Belgian singer (Aaron Lippert), and an Austrian guitarist (Alex Machacek). With me being a British keyboardist living in Los Angeles, we ended up forming and recording the first EP without the band ever meeting. Even the group publicity photo was Photoshopped together from individual pictures shot in different cities, and the video was also shot in five different locations with each musician filming themselves against a green screen as they actually recorded their part on the song. It was a truly international project and is one of the few music videos where the band are not synching to a recording, but are actually being filmed live playing onto the recording.

The idea of the U-Z Project, rather than having a fixed band with its own repertoire, was to invite an array of guest players to pay tribute to the best of the progressive genre, including playing music by King Crimson, Mahavishnu Orchestra, ELP, UK, and others. It was that project that got me back together with John Wetton, which led to the UK reunion tours.

UK was certainly the most popular band/project of your career. Can you share some background stories on the composing and recording of those albums?

UK marked the deliberate narrowing down of what I could do stylistically, and saw a focus on one particular approach that best suited my writing and playing—back to the British progressive style I had started with Curved Air in '72. I made a conscious decision to stop playing folk fiddle, as I had on a couple of projects, and rock 'n' roll-style piano as I had done on John Entwistle's albums. And while I was at it, lose the Fender Rhodes and the Clavinet and return to using the Hammond C3. I had to find another Hammond for UK, a 1950s model that I had modified, as I had sold my first Hammond to Jon Lord of Deep Purple when I joined Roxy in 1973.

I was also lucky enough to time the formation of UK with the first introduction of the Yamaha CS80 polyphonic synthesizer, so that helped give me a distinctive new sound with which to start writing the UK material. There's no question that instrument inspired the writing of "Alaska," "In The Dead of Night," "Danger Money," "Carrying No Cross," and years later, the entire *Green Album*.

Actually, "In The Dead of Night" was probably the song that came together the quickest and easiest, which is probably why it became UK's signature song. I brought the piece in as a virtually complete three-part suite—mostly written out on sheet music—but it turned out to be one of those songs that everyone just started playing and it immediately worked. Bill Bruford's drumming style fit perfectly with the 7/4 rhythmic lilt; John Wetton added some terrific vocal lines and lyrics; and, of course, it pro-

JERRY LOFARO

vided the backdrop for Allan Holdsworth to play one of the all-time classic guitar solos on record. Looking back on it, I think it probably established the fact that my writing style worked the best for everyone in the group; John's writing didn't work quite so well for Allan and vice versa, so Bill and I occupied the stylistic center. The "Presto Vivace" section of the suite was obviously inspired by my tenure with Zappa. [You will find the transcription on page 36.] My favorite pieces to play with Frank were the highly technical Inca Roads-style keyboard-featured instrumentals that he was famous for, and I really wanted to have a piece like that to play with UK. The original version of "Presto Vivace" though, before I added the syncopated bass part, was like a Hungarian dance in a regular 7/16 Eastern dance rhythm. That's probably hard to imagine now, if you know the piece.

You recently released a UK boxed set, with a lot of interesting content, and different mixes of the previously released recordings. What were some of the perhaps unexpected musical highlights for you in revisiting all those recordings?

One of the discs is from a tape I had kept for 38 years! It's a rough mix of UK laying down the tracks for the *U.K.* album. There are one or two overdubs on it, but it is mostly the raw instrumental tracks, pre-vocals. There are even a couple of solos from Allan Holdsworth and myself that didn't make the finished album. So that's pretty interesting to hear. There are also several discs of live radio broadcasts, so you can hear how far out we could get at times… rough around the edges and close to a complete train-wreck on occasion, but quite exciting to listen to so many years later.

You do all this work yourself (save for having Bob Clearmountain do some mixing), as you have done all the work putting together your various ensembles, tours, and concert dates. Why is that?

Ha, I ask myself that all the time. It could be that I am just an extreme control freak! But one thing I have learned from sustaining a 45-year career in music, is that when something works well, it helps to know why and how it worked. And if your successes are based on the considerable input of others, then what do you do when they are no longer around? This is essentially what happened to me after I disbanded UK and moved to the U.S. in 1979; I no longer had a management company, a record company, a singer to work with, a lyricist, or any musicians that I knew in the New York area. Yet, I was about to start my first solo album (*Zinc – The Green Album*). I started then to learn how to do all of the jobs myself, so I could be completely self-reliant. Since then, I have been my own manager, agent, lawyer, recording engineer, designer… and the list keeps growing. I've had my own label for sixteen years, and even promoted some of the concerts myself for UKZ and on the UK tours, including UK's final concert in Tokyo last year. When you deliberately reside on the

edge of obscurity, as I tend to do, it is also hard to find people to invest their time and money into what they accurately perceive as risky projects, or to drum up the budgets to hire teams of people; so it is most sustainable, and ultimately most satisfying, to work alone on each element of the project and take personal responsibility for any successes or failures. For me, that's also part of the learning process that helps you to constantly keep improving and becoming more and more self-reliant and truly independent. Conversely though, it is also the same reason why everything takes me so long to do.

You seem to choose your instruments carefully and get deeply inside of them. Can you discuss your relationship with the most important instruments for you over the years?

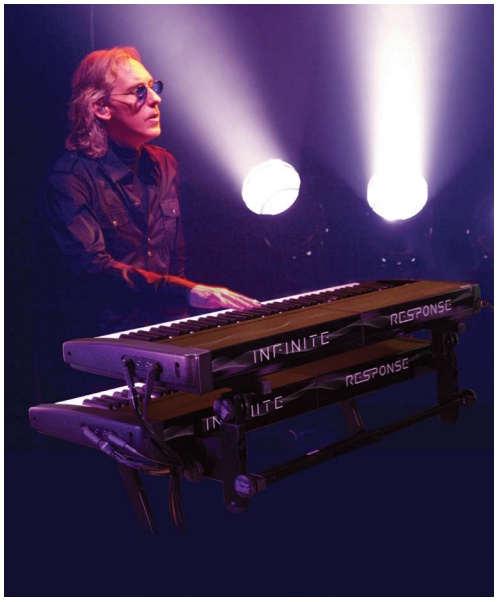
Well I have always tried to be on the cutting edge of technology—from my early days of synthesizers in 1971, to buying the very first Yamaha CS80 polyphonic synth in Britain, to making the first MTV video with CGI, to buying the first polyphonic Synclavier in New York and making the first all-Synclavier album, which was also one of the first all-digital CD releases. Electric violin, sampling, Direct-to-Disc recording, Euphonix, surround-sound, Blu-ray Audio—the list goes on. With my friend and brilliant technical guru, Hans Tobeason, we have been on the bleeding edge for years.

Hans introduced me to the development of the VAX77 folding keyboard, and to Van Chandler at Infinite Response. As I'd just recently gone back to live performances, we loved the idea of the folding MIDI controller, and it had polyphonic aftertouch, which was a big plus for me. But I found the velocity a little hard to control in the keyboard's early form. So we spent many weeks working with Van to modify the feel of the keys, to make it more touch responsive and controllable. We had to add quite a bit of mass to the keys, but we ended up with a keyboard that is weighted enough for piano playing, but still light enough for Hammond slides.

Are you comfortable with controlling polypressure per finger, or is it mostly a left hand versus right hand thing for you?

I am lucky enough to have very strong and very independent fingers, so using polyphonic pressure aftertouch always felt pretty natural to me. Of course, the first synth with that feature was the CS80, so I used independent pressure control on all of the UK albums; you can hear it clearly on "By the Light of Day," with the filters opening up on individual notes of the chord. The Synclavier had the same feature, as it was built with the Prophet T8 keyboard.

But, you're right, I like to stick with one or two instruments and really squeeze everything out of them—really go deep. An example on the CS80, for instance, would be the big synth solo on "Rendezvous 6:02" which was played with all sixteen oscillators in monophonic unison; I still don't think anyone else has figured out how to do that, because there is no obvious way to do it.



The Synclavier was another instrument that I went really deep with. The first thing I did was get hold of the operating manuals, about two months before the system was delivered. I remember sitting on a beach, on vacation in the Caribbean, reading these three giant manuals so I would be able to hit the ground running when the system finally arrived. When I made the *Theme of Secrets* album a few weeks after the arrival of the Synclavier, I was already familiar enough with the programming software to input many of the electronic motifs, such as the famous 'bouncing balls,' typing it all in using only the qwerty keyboard. And as I did the whole album with only a 10MB hard drive and a now unbelievable 4MB of RAM, I also had to develop some novel micro-looping techniques and use the FM synthesis module as much as possible.

In recent years, Apple's MainStage software stacked with hundreds of AU software instruments is the system I have been milking to its fullest capacity. The recent UK reunion tours really pushed the software to its limits having to replicate all of the CS80, Minimoog, Prophet, VCS3, Triadex Muse, and Hammond sounds from the '70s, all on two laptops. It took me months to rebuild all of those sounds in software. My entire rig consists of two VAX77 keyboards and two Mac laptops running MainStage; plus a bunch of controller pedals. I can do everything I need to do with that setup. And the whole rig folds into a handful of suitcases. My only frustration with the setup is that I wish the pitch wheel was on the top of the VAX, instead of on the side. Also, some of the software instruments, and even MainStage itself, are still a bit glitchy at times. It takes a bit of nerve to be standing in front of a few thousand people relying completely on computer software and a couple of USB connections. And it has all crashed on me more than once. That's the thing with the CP70 and the Hammond: They weighed about 10,000 pounds, but they always worked.

I know your sound design is very detailed, what did you have to do specifically to satisfy your exacting standards?

You know, I have never been one of those people who likes to say that old analog synths sound so much better than digital plug-ins, or that vinyl sounds so much better than CDs; whether it's true or not. The way I look at it is: Here are the newest tools; let's take advantage of the technological advances and make the best sounding music we can with this technology. I don't consider one set of tools "purer" than another, and I personally have no desire to go back to the days of tuning oscillators live on stage. It has taken some work, and a developed set of ears, to make the new sounds and to replicate the old sounds I have used in the last several years, but I think, frankly, that the software sounds I now use are actually a marked improvement on most of the original analog sounds—maybe with the exception of the Hammond and the Leslie, but that's probably just my own failing, for lack of time.

Obviously, for the *UK* CS80 sounds, I started with Arturia's CS-80 V to capture the character of the original sound, but more often than not, I have added a Spectrasonics Omnisphere timbre underneath to give the sound more power and warmth, not to mention stereo width. On a couple of occasions, I would be looking for Omnisphere sounds, for example, for the CS80 strings on "Thirty Years" and find that Eric Persing, Spectrasonic's brilliant soundsmith, had already created a "UK Strings" patch that was exactly what I needed. So that saved me some time. I also found a few "Alaska" patches as presets in a bunch of instruments, but chose to make my own, again with a combination of CS-80 V and Omnisphere, but also using split keyboards and independent right-hand and left-hand oscillator detuning with separate pedal controls. MainStage is fantastic for that kind of thing; my favorite feature is the floating split, which I use all the time. There are enough studio plug-ins, compressors and limiters, software instruments and effects plug-ins to mold any sound for stage use, as long as you have the processing power. Even for the violin, I have been able to find all of the old effects boxes I used to use—the Big Muff fuzz-box, the MXR Phase 90 phaser, the Cry Baby wah-wah. All of it is available in software. My violin sounds are better now than back in the day.

You formed the Zealots Lounge concept in 2010, marketing directly to your fans. Can you relate how you chose to take this self-started effort, and how it has worked out for you?

About ten years ago, it became apparent to me

that not only would we see the demise of the optical disc as a delivery medium, but that eventually all content that could be digitized would either be free or, best case, likely to be delivered on a subscription basis from just three or four mega-providers. I used to guess that would be Apple, Sony, Google, and Universal: I wasn't too far off with my prediction. I envisaged that everyone would probably pay $30 a month to one of those companies for unlimited digital access to all music, television and movies produced since 1920. More obscure, uncommercial musicians like myself would never be able to make a living competing with every popular hit ever made, especially if we had to rely on some minuscule streaming payment. So I decided to make my music available only on my own independent subscription service and formed the Zealots Lounge. At least that was the original idea for downloads and streaming. I am now putting out the UK *Ultimate Collectors' Edition* box set into retail and online stores, but only as a physical 18-disc set.

Would you suggest it for others?

Oh, I think each individual artist has to decide for themselves the structure of their own business. I left the structure of the mainstream music business in the mid-eighties and have forged my own path since then. This is what works for me. To be honest, I haven't really considered myself part of the so-called music industry since about 1984.

Actually the members of the Zealots Lounge helped get the UK box set started. Instead of using a pre-existing crowd-funding website, I simply started my own "Z-Funder" campaign using the store on the Zealots Lounge. Having your own fan community as the project funders allows for less pressure, as well, which in my case is a good thing as it has taken me 14 months to complete the full UK collection.

What are some of the positives and what are some of the pitfalls you have found with this approach?

Well, I would say the biggest pitfall is that maintaining a fully functioning store and secure streaming and downloading platform requires the expense of a super competent technical person as webmaster. Also, producing enough content year after year is hard for someone like me who generally takes at least a year to finish every project I start.

But the most amazing and unexpected thing to come out of the Zealots Lounge is that the 'Zealots' have become quite a community unto themselves; several of them have become friends and stay at each other's houses around the world. Quite a few Zealots also travel all over the world to meet up at my concerts. And in return, I usually get them into the soundchecks and my music lectures, and have arranged private get-togethers at restaurants and bars from Tokyo to Panama. I think building a community of supporters is a terrific thing to do, and having a personal connection with them has been one of the best things about starting the "Lounge," without question.

Early on in your career you played with many of the most adventurous groups of the time. I hesitate to put a label on the type of music, but would you reflect on each group and the music you made together?

I have no problem putting labels on any of it—unless you're doing music like Zappa's that crosses over into so many genres. Identifying a musical style is how we communicate and, to some degree, how we identify our intention. I've often said that Mozart wrote terrible punk music! In the early '70s the music we did was called classical rock; it's now referred to as progressive rock. Roxy Music was not that, of course; it was first referred to as glam rock, but later was given the much more respectable moniker of art rock. Roxy, though, were really the first new wave band; the Roxy Music style set the tone for many of the '80s groups.

My early career found me adapting to different styles on a regular basis; I suppose it was both a strength and a weakness. It has been a strength because it has allowed me to venture into a fairly unlimited range of musical environments, from classical to rock, jazz, world, film scoring—you name it.

But in the early days, being so diverse was probably detrimental to establishing my own musical identity, at least in the public's mind. In Curved Air, I had to replace two of my musical heroes, the main guys in my favorite group, so I was first seen as the 17-year-old "Darryl Way/Francis Monkman replacement" kid. Then I switched to being the 18-year-old Brian Eno replacement in Roxy, until I could put a strong identity on a couple of albums. But, even having done that, I then went right into replacing George Duke and Jean-Luc Ponty in The Mothers. I suppose this is one of the reasons I first turned down Yes in '74: Rick Wakeman had multi-Platinum albums and a big shiny cape; I didn't want to be the 19-year-old Wakeman stand-in, even at that point, though it still took me several more years to establish my own identity on keyboards.

As for playing with Jethro Tull, they were such a good group of British gentlemen; solid musicians and super professional on tour. Ian Anderson and I became friends after UK toured with them; enough that he invited me to collaborate with him on his first solo album. Of course, as it wasn't a Tull album, I was given a lot of freedom to layer the tracks with my latest synth sounds and create something different from the usual folky Tull approach. However, when the record company heard it, they thought it was the new, fresh, '80s sound that Jethro Tull needed, so the whole project was turned into a Tull album and subsequent tour. I think some of the hard-core Tull fans were a little taken aback by this new synth-prominent '80s Tull, but it was a great lineup, and it turned out to be easily the most enjoyable arena tour that I ever did.

You recently performed at the Official Keith Emerson Tribute Concert in Los Angeles. How did you feel about your performance? Did Keith have an impact on you personally?

Even though our career paths have been somewhat intertwined, I had only come to know Keith a little, on a personal level, in the last few years. I am glad I had the opportunity to tell him how much he changed my life. When I was a 15-year-old classical piano kid, I went to see ELP's first tour: I think it was maybe my second or third rock concert. I still remember the excitement of seeing the big Moog for the first time, and the rotating Leslie cabinets, and feeling the sheer power shaking the theater as they kicked into "Barbarian." Until I saw that, I had no idea that it was even possible for a piano player to essentially blow people's heads off, as that did. To this day, when I'm onstage playing something like "Alaska," I still remember what that experience felt like to me as a young musician, and I revel in thinking that I may be having that same effect on people when I'm onstage. So to be asked to stand in for Keith and rattle the theater playing the big modular on "Lucky Man" was more than an honor, it was truly a profound moment that transported me back 46 years to that Odeon Theater in Stockton-on-Tees, England. I could never have imagined back then that I would end up being that guy onstage.

It seems that you have now finished looking back over your previous works/bands. So what lies in the near future?

I'm a big believer in 'natural resonance,' so I tend to let the future unfold in its own way. But I do prefer the quiet and focus of the studio over touring, so my performing days may be over. We'll see. In the short term, I would like to keep working on studio productions, but I have still not given up on my childhood dream of becoming a serious symphonic composer. I've just got to figure out how to fund a project of that magnitude. Maybe that's what I'll do in retirement. ♫

From the Keyboard archive: A transcription of Jobson's organ solo from "Night After Night."

Read "Thoughts on Rock Improv" by Eddie Jobson.

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URI CAINE

JAZZ, CLASSICAL, AND BEYOND

BY JON REGEN

SIMON MIELE

"I LIKE GOING OUT TO PLAY AND BEING SPONTANEOUS AND IN THE MOMENT," pianist and composer Uri Caine says. "But then you have music that you work on for months and years that comes together and you think, 'Wow, I really needed all that time to work it out.' I like the contrast between the two."

Caine began his musical studies early. "I grew up in Philadelphia, and I started taking piano lessons as a little kid," he says. "When I was around 12, I started studying with Bernard Peiffer, who was an amazing pianist that a lot of people were studying with. He was a classical musician that grew-up in France, but he ran away during World War II and went to New York and later Philly. Bernard had incredible chops and could play like Art Tatum. He was also a great person and teacher, and he talked about all types of music and music history, as well as the need to practice classical music, harmony and composition. Bernard also turned me on to another teacher named George Rochberg, who had me study a piece a week in a certain style and then write an example of that on my own. So even though at that time my focus was on being a jazz pianist, I learned a lot from him about classical music, and I used it as a way to get into improvised music."

During his high school years, Caine would begin a fast-paced gigging schedule that continues to this day. "That's when I really started playing around Philly," he explains. "Philly had a lot of music in it back then—people like Kenny Barron and his family, the Eubanks family and many others. I was playing around town as a keyboard player in lots of places. Sometimes on Saturdays we would play all afternoon and all night. Then when I was around 17, I started playing with a local sax player named Bootsy Barnes and through him I met all of the drummers in town, like Philly Joe Jones, Mickey Roker, Bobby Durham and others."

Early on, Caine would split his work be-

tween acoustic and electronic endeavors. "I was listening to a lot of Herbie Hancock, as well as Chick Corea albums like *Now He Sings, Now He Sobs*," he says. "Plus all of the Miles Davis piano players like Wynton Kelly and Red Garland. When I look back on my time there, I was sort of doing different things. One was the straight-ahead jazz scene, and another was the new wave/electronic thing playing synthesizers with people like [bassist] Jamaaladeen Tacuma. I played a lot of keyboards back then, even on jazz gigs. First I had a Fender Rhodes that I schlepped around everywhere. Later I got a [Yamaha] DX-7 because it was easier to carry around. I also had a Minimoog and an Oberheim. I saw that there were other opportunities to play in different situations. One of the first recordings I made was with a drummer named Cornell Rochester that featured Gerald Veasley, playing music influenced by punk as well as funky things like Grover Washington Jr."

"I ended up not going to a conservatory because I continued studying with George Rochberg at the University of Pennsylvania," Caine continues. "But at the same time, I was out almost every night playing. I played all kinds of gigs, from cocktail parties and wedding gigs with big bands to theater and dance gigs and even playing in mental hospitals. One time I did a tour with Grover Washington Jr.

where we played in every prison in Pennsylvania! I also became one of the 'trio guys' in Philly, where when people like Freddie Hubbard or Joe Henderson would come down, we would play with them. I eventually moved to New York City after graduating college in the early 1980s, and I began playing in a bunch of different scenes. I realized that as a keyboard player, you could really be in a lot of different worlds. There are a lot of varied skills involved, and even if those worlds don't necessarily get along with each other, it doesn't hinder your ability or desire to be part of them. You just have to go for it. Later, playing with people like Don Byron, John Zorn and Dave Douglas opened things up for me as well."

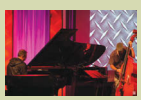
Caine's career started taking off after a series of acclaimed recordings that merged seemingly disparate musical styles together. "There has always been an aspect of improvised music that has looked to classical music," he says. "I mean, even people like Duke Ellington and others referred to it, and also [pianist] Jacques Loussier and the idea of 'swinging' with Bach. I made a few records for a label called JMT that later became Winter & Winter. One was called *Sphere Music* and the other was called *Toys*. They were more straight-ahead kinds of records. Then in 1996, I made a record [Gustav Mahler/Uri Caine *Urlicht/Primal Light*] with my friends where we were playing Mahler. That gave me other opportunities to play festivals outside of jazz. We played in Salzburg, Austria in Mahler festivals, and all over the world. That led to other projects based on the classical music I had known as a kid. I saw that you could really study classical music by working on these kinds of things, and I really enjoyed the fact that I was learning a lot. In fact, I never recorded it, but I made arrangements for the group of three complete Mahler symphonies. Then I analyzed the harmony so we could improvise over them like playing a jazz standard. It was a lot of work, but you learn a lot from doing that. I also saw that there was a certain freedom that we brought to that music, so we did other projects too, like the music of Verdi. I tried to do things in different ways. The Mahler project involved getting into his biography, and I also tried to exaggerate and bring out some of the many 'worlds' within his music, like the Klezmer element, for example. Or the idea of having this beautiful music with a DJ soloing over it, or letting people in the group play. I also did a version of Bach's Goldberg Variations, which is something I had heard since I was a kid. Bernard Peiffer had turned me on to the Glenn Gould recording of it. So I thought to myself, 'Okay, Variations. Let me look at what Bach is doing. He writes a canon in every interval, and there are dance songs and drinking songs.' So I tried to amplify that by writing my own variations that sort of mirror that."

Besides his genre bending "classical meets jazz" work, Caine continues working in a variety of musical formats. "I think it's important to keep on playing as a pianist," he says, "so I continue in that vein. I also have a group called Bedrock that is much more into the synthesizer/electronic drum-and-bass thing. Also, once I started doing projects within more classical festivals, I would get commissions and invitations to write music for them. So that's another way of working, because I'm usually playing in those projects too. For instance, I have a whole group of string quartets that I've written, but I'm improvising as well. I also have some recent releases: One is a trio record called *Calibrated Thickness* with Mark Helias on bass and Clarence Penn on drums. We just did a tour of Europe and have some gigs coming up in the United States, as well. I also did a string quartet with a group from Poland, and I'm working on more projects with synthesizers and computers, as well as playing as a sideman in other people's groups."

When it comes to keyboards, Caine spends a lot of his time working in the digital realm. "I had a lot more gear than I have now," he explains. "I still have my Fender Rhodes, my DX-7 and an old Korg organ with drawbars, but I use a lot of software instruments these days because I'm mostly working in Logic and Ableton Live. So I'm using a lot of plug-ins by Native Instruments, Arturia, and Rob Papen. When I travel, I'm usually using just a laptop and a controller, because it's a nightmare trying to take equipment on planes these days, especially since September 11. Now I usually rent a keyboard for shows, and I take a little Korg controller with me. It gets the job done."

And what advice does this multifaceted, musical chameleon offer to the next generation of artists? "I know it sounds like a cliché, but I would say 'follow your heart.' In other words, there's a lot of joy in working on music in different ways. And if you're self critical and you have the opportunity to play, you see the things you have to work on and you revel in the chance to do it. Be as specific as you can, but at the same time, let the music you make be joyous. Don't overthink it."

Find-out more at uricaine.com ♫



Watch Uri Caine Trio perform at Getxo Jazz.

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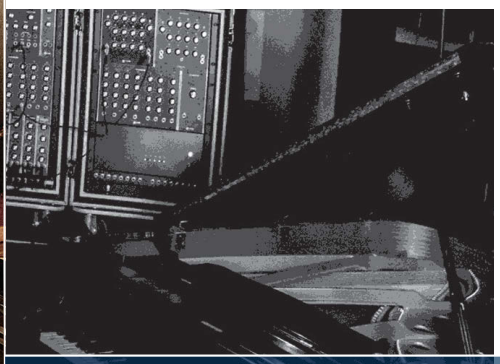
Erik Norlander



THE SYNTH ACE RETURNS WITH HIS SOLO RELEASE *SURREAL*

BY JON REGEN

ERIK NORLANDER HAS MADE A CAREER CONJURING OTHERWORLDLY SOUNDS from towering racks of gear. Now the multi-keyboardist, known for everything from sound design to tours with the super-group Asia, returns with a new solo release, *Surreal*, which marries evocative instrumental textures with a classic rock lineup.

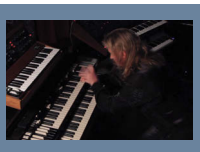
"In 2009, I recorded an album called *The Galactic Collective*, which [included] my ten favorite instrumental tracks that I had written for other projects," Norlander explains. "I gathered them all together and went into the studio with an awesome rhythm section. It was meant to be like an anthology, but the album really caught-on, so we also released a DVD featuring live footage from the studio. Then a year later, I released a live DVD of the album as well. And so while the project was sort of meant to be a one-off, it had a lot of inertia. I kept getting invited to tour and play festivals five years after the album was released. I had intended to record a follow-up album a lot sooner, but as John Lennon said, 'Life is what happens while you're busy making other plans.' So it took about six years to get this next album, *Surreal*, out."

Norlander has been making sonic waves in his native California for decades. "I was born in Hollywood, believe it or not" he says. "I started playing piano when I was eight years old, and I kept that up right through college. I majored in music at UCLA, but I got bored with the *rigidness* of that as soon as I started playing in rock and jazz bands, so I ended-up graduating as an English major. My first band was called Rocket Scientists, and we put out our first record in 1993. In 2014, we celebrated the 20th anniversary of the band by releasing two albums. In fact, the two guys in the band—Mark McCrite on guitar and Don Schiff on cello—actually appear on *Surreal* and have been great friends of mine for my entire adult life. I've also made 10 studio albums with my wife, vocalist Lana Lane, who appears on *Surreal*, as well. So for a lot of my career, I've been juggling three different bands—Rocket Scientists, Lana Lane, and my solo work. I was also touring with Asia featuring John Payne and doing other projects."

In addition to Norlander's live and recording work, he is also a much sought-after sound designer who was on the original Alesis Andromeda design team. "It's funny because I don't really consider myself a keyboard *collector*," Norlander says, "but whenever I say that, my friends laugh in my face, because I have something like 25 keyboards, including a Moog modular system, a Hammond B3, a Mellotron, a Prophet-10, four Minimoogs and more. It looks like a keyboard museum in my studio, but I acquired these instruments because I feel they each have classic sounds. They're amazing sounding instruments, whether they are from 1950 or 2016. When we were designing the Andromeda back in the 1990s, we all brought our favorite synths into the design room. We wanted to model all of the elements of our favorite synths. That's why it's a very special instrument, built with a tremendous amount of love."

Norlander is equally fascinated by both vintage and modern gear. "I think the recent Moog products like the Minitaur are fantastic," he says. "What a great little synth! It's about a tenth the size of my original Taurus pedals, but it sounds just as good in a different way. I also use things like IK Multimedia SampleTank 3 and T-RackS, and the Arturia and Spectrasonics plug-ins. I don't care if something is old and vintage or the latest thing that came out last week, as long as it sounds good!"

Surreal has both a majestic and unhurried feel to it, a rarity in an age of single-driven, over-compressed music. "I actually used the word 'unhurried' myself when describing my arrangements to both the musicians and the mastering engineer," Norlander explains. "We really tried to create an *album* of music, not just a bunch of songs that would go together. It's meant to be like a movie, with an arc, different acts and scene changes. The album is meant to be an experience. I even worked with the mastering engineer to not completely hard-limit every track. I wanted it to breathe, and I went crazy over the little details. But it made a huge difference." ♫



Watch the official video for "The Galaxy Collectors."

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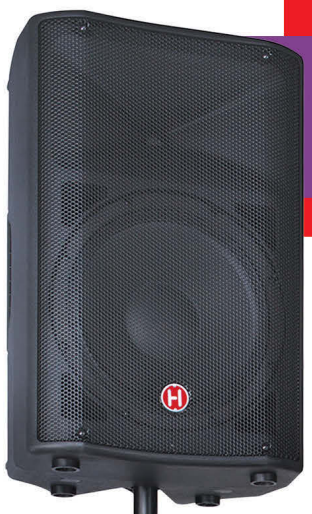

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PHILLY'S HIP-HOP KEYBOARD HERO

BY JON REGEN

JUNIUS BERVINE

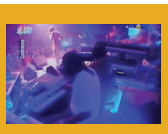
"IT'S DEFINITELY CHALLENGING, BUT THROUGHOUT MY CAREER I'VE ALWAYS looked for challenges," Junius Bervine says of his work with rap superstar Kendrick Lamar via phone from his hometown of Philadelphia, P.A. Bervine has been wearing numerous hats of late, both as an in-demand producer and as a live performer with artists such as Lamar, Common, and Pharrell Williams, for whom he is also Musical Director.

"Before I started playing keyboards, I was singing and dancing," Bervine explains. "My mother was a big influence on that, playing music by Stevie Wonder, Donny Hathaway, and Earth, Wind & Fire. I was born in 1974, so I caught a nice era in the 1970s. It's actually my favorite era for music of just about every genre. I started beating around on the piano early on and, eventually, I started taking private lessons. Later when I was in high school, I was always inside of the jazz and band classroom, practicing and getting my skills up. When I first heard Oscar Peterson, that's what made me want to play. And of course, Herbie Hancock, Roy Ayers and a bunch of different musicians were big influences on me, too. During my high school years I was also introduced into the Gospel world, as well. Once I started playing in church, it opened up a lot of doors for me. I started off working on Gospel plays with David E. Talbert, and I met lots of musicians and producers."

Bervine's first big musical validation would come by way of his Gospel music connections, who led him toward working with R&B/soul sensation D'Angelo. "The Voodoo tour in 2000 was an experience," Bervine says. "That was the best gig I've ever done in my life. Hands down. I had met many different church musicians like Tony Moore, who introduced me to James Poyser who plays for The Roots. James was my mentor, and he and Ahmir [Questlove Thompson] took me in and showed me the ropes. They had me listening and helped me open my mind to all kinds of music. Those two, along with Brian Frasier Moore, were really instrumental in my success. I also started working for James in the studio, and I got my studio chops up, working with keyboards like the Fender Rhodes, a Roland Juno-106, a Clavinet, a Wurlitzer, and other authentic instruments. I ended-up using a lot of those keyboards on my live gigs with D'Angelo, and later Common, who I started working with in 2002."

Other artists would start calling on Bervine as well. "I played for Brian McKnight, I MD'd for Kelis, and I actually shared the stage with Prince twice, which was a musical high for me and changed my life. I've also toured with Floetry, the French group Les Nubians, Patti LaBelle, and N.E.R.D. Then in 2005, when Pharrell came out with his first solo record, I played with him on the *Late Show with David Letterman*. Pharrell was working with Ahmir, who called me for the gig. After that when Pharrell needed a band, I was asked me to put a band together. And he's trusted me ever since then. What's crazy is that I left the whole music scene in 2009 and moved my family to Egypt to do Biblical studies. It was a fun and interesting time. I lived there for five years, and I learned a lot of other kinds of music. When I returned in 2014, I started working with Kendrick Lamar as soon as I got back. After I ran into Pharrell in Los Angeles, who was rehearsing next door to us, he saw me and was ecstatic. He gave me my position back, and for that I'm grateful."

Whether he's playing arenas, or producing back home in Philadelphia, Bervine is always focused on the music at hand. "One thing that I preach to a lot of younger musicians is to think mentally about the music, not just physically" he says. "Right now, everybody can play. It's like having crabs in a bucket. [Laughs.] But the one thing that has kept me working and successful is the mental aspect. The physical part is learning your instrument. You sit down and learn theory and scales. But for me, the mental part is bigger because you have to learn how to play different genres with different people. You can't just do what you want to do. It takes a mental mind to hold back the physical. That's why a lot of guys get fired. They overplay. I learned from watching James Poyser: He can do a lot, but sometimes he does nothing except make a record feel good. It's about having good instincts, like timing, discipline, confidence and vocabulary. So once you have the physical, get with the mental!" ♫



Junius Bervine with Common, Live in Germany

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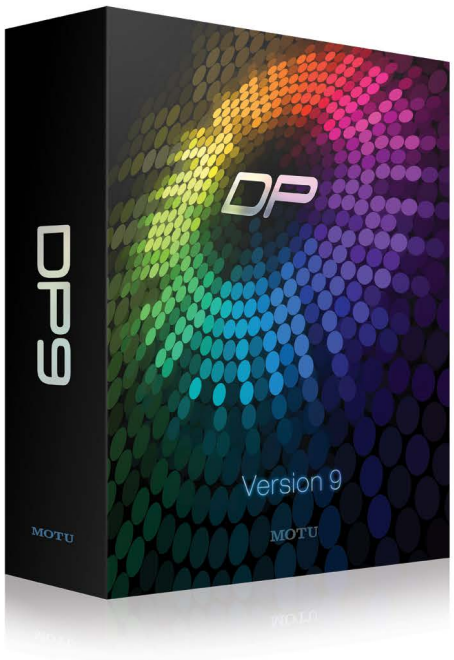

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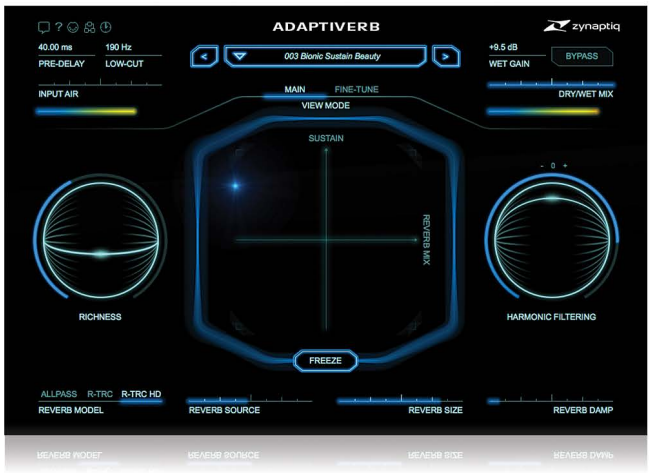

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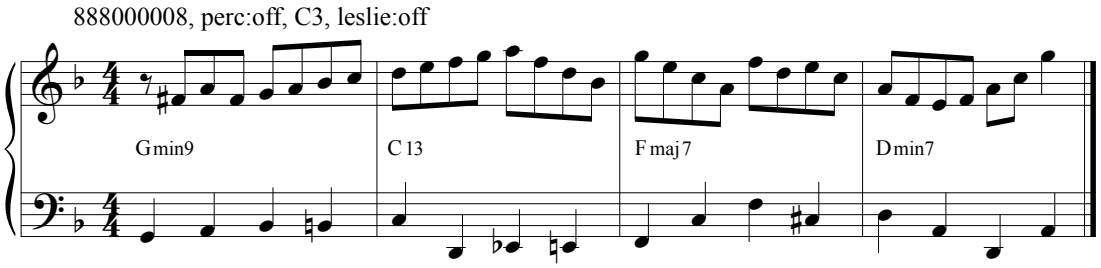
5 WAYS TO PLAY LIKE Organist Don Patterson

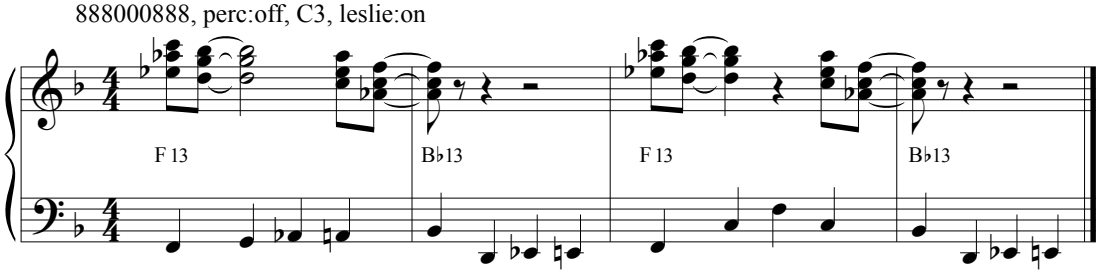
BY BRIAN CHARETTE

DON PATTERSON, THE GREAT AMERICAN ORGANIST FROM COLUMBUS, OHIO, IS NOT AS WELL-KNOWN AS JIMMY SMITH and Jack McDuff, but he has influenced countless jazz organists. Patterson started playing piano as a child and was influenced by the legendary pianist Erroll Garner. He later switched to organ after hearing Jimmy Smith in 1956. In the early '60s, Patterson made a series of acclaimed recordings with saxophonist Sonny Stitt and guitarist Pat Martino. This month I'll present some exercises to help get Don Patterson's sound into your own organ playing. For all of these exercises, tap on the *B* note in the middle of the pedal staff with a flat foot if you are playing bass pedals, and use the setting *70*. The left organ manual bass-line setting is *838000000* for all exercises. The right hand settings are given above each example.

Ex. 1



Ex. 2



1. Bebop Lines

Patterson was known mostly for his use of blazing fast bebop lines. He also often played without percussion, as heard in **Ex. 1**. Patterson is rumored to have played all of his lines with only his first three fingers, so try playing this example using that same technique. In the first two bars, we start with a chromatic embellishment of the tonic and then use the *G* Dorian mode (*G*, *A*, *B♭*, *C*, *D*, *E*, *F*, *G*) up to the ninth. Next, we have a few descending arpeggios, also from the Dorian mode. In the last two bars, we play notes from the *F* Major scale (*F*, *G*, *A*, *B♭*, *C*, *D*, *E*, *F*) ending on the ninth.

2. Blues Like Basie

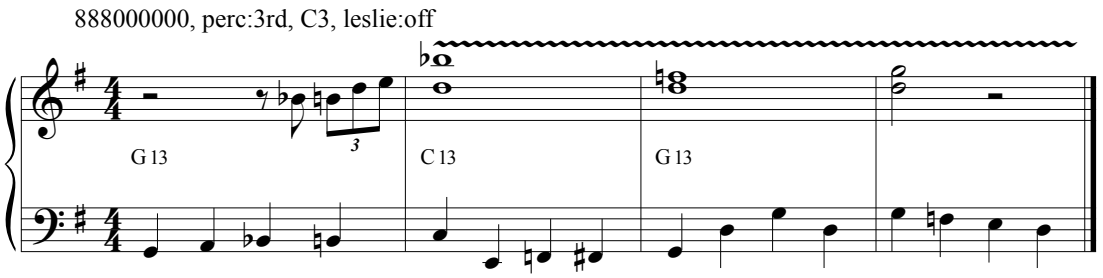
Example 2 features some shouty blues "stabs" in the style of the Count Basie Big Band. The drawbar setting used here is called "Half Fat" and sounds great for these kinds of chords. The bass line is a simple I-to-IV progression played by tapping the foot pedals. The chords alternate between *Fmin7* and *Gmin* voicings in the right hand. These little harmonized riffs can be used over an entire blues progression, too. Think of them as a sax section playing background lines for a soloist.

NILS WINTHER

Bio

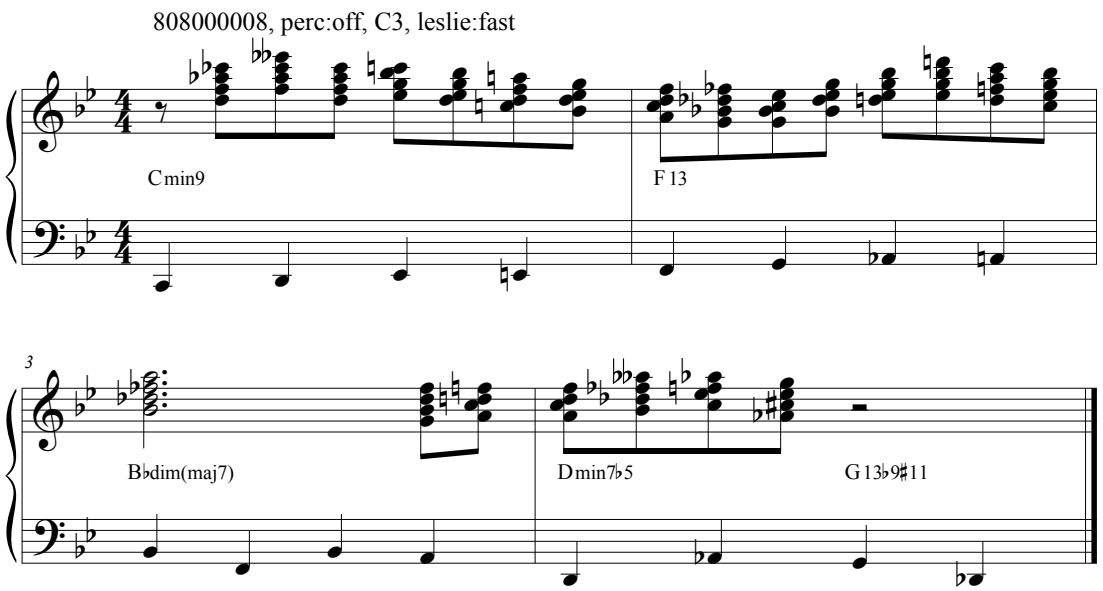
"When using the organ pedals, tap lightly so only the beginning of the note sounds. When you get more comfortable, you can try walking some turnarounds with your feet," says keyboardist and composer **Brian Charette**, who won Downbeat Magazine's "Rising Star Organ" award and recently released the album *Once & Future*. He also has a new book out entitled *101 Hammond B-3 Tips: Stuff All the Pros Know and Use*. Find out more at briancharette.com.

Ex. 3



Ex. 4

Ex. 5



3. Right Hand Shakes

Ex. 3 has a *G* Blues bass line and three different kinds of "shakes" in the right hand. All of the right-hand notes come from the *E* minor pentatonic (*E*, *G*, *A*, *B*, *D*, *E*) and *G* Minor Pentatonic (*G*, *B♭*, *C*, *D*, *F*, *G*) scales. Try shaking from one note to the other in a lazy way. Also, don't be afraid to smush the notes in the middle to get that authentic organ *shmeer*!

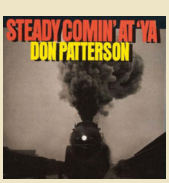
4. Push 'Em In!

Ex. 4 takes cues from the great Patterson album *Holiday Soul*. Here we push all of the right-hand drawbars in, with the 4th out just a little. Put the 2nd percussion harmonic on with a long decay and normal volume. This is a great technique for breaking the organ group down after some loud tunes.

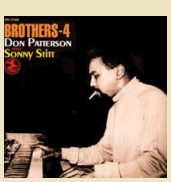
5. 4-Note Chords

Patterson would sometimes harmonize his bebop lines with 4-note chords that take notes from the *C* minor Dorian mode (*C*, *D*, *E♭*, *F*, *G*, *A*, *B♭*, *C*) and diminished seventh chords that are used on the passing tones of the top line. **Ex. 5** is a little tough to read and has a few double flats so take your time. On Bar 3, beat one, we have an interesting *B♭* major 7th voicing with a diminished triad that silently hints at the regular tonic chord. The last right-hand chord is one of my favorite voicings, *G13 ♯11 ♭9*, which sounds super crunchy next to the diatonic shapes. Note that this example utilizes the "Silk" organ setting in the right hand, which sounds great for chords like these. ♫

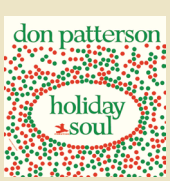
Listening List
Essential Don Patterson Recordings



Steady Comin' At Ya



Brothers-4



Holiday Soul

SOUNDCLOUD

Hear Brian play the audio examples from this lesson online.

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LISA TANNER

The Basics of Rock & Jazz Blues

BY SCOTT HEALY

Ex. 1

SOME OF MY BEST FRIENDS are guitarists, and they love playing in sharp keys, such as *A*, *E*, and *G*. (Especially *A*, because they get a great sounding first position tonic I chord, and they can also use that nice, low, open *A* string). Then there are the jazzers who like playing in flat "horn" keys like *B*♭. A jazz blues has the same twelve-bar structure as a standard rock blues, but with a few added harmonic embellishments. Let's examine both of these styles in more depth.

1. Rock Blues

Example 1 presents one chorus of a slow rock blues in *A* in the style of Elmore James and Muddy Waters. Some call this a I-IV-V progression or a straight blues. It has three 4-bar phrases, the first four bars on the I chord (or the tonic *A7* in this example), then two bars on the IV (*D7*), back to two bars on the I. The last four bars are the familiar V(*E7*) to IV (*D7*) to I (*A7*) progression, with a quick turnaround to the V (*E7*) in the last bar. The left hand pattern is your anchor, and the slow 12/8 feel should be even and grooving. As a general rule, you want to accent strong beats and play with a fairly heavy hand. The grace notes I've indicated in the examples are really "slides" or "hammers" to be played *on* the beat. Rock on!

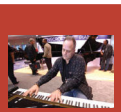
Ex. 2

2. Jazz Blues

Example 2 illustrates a typical jazz blues in the key of *B♭*. Instead of staying four bars on the I (*B♭9*) chord as in a rock blues, here we go right to the IV (*E♭9*) in the second bar, then back to the I in the third and fourth bars. Blues guys call this the "quick change" or "quick four." In the sixth bar there's a passing diminished chord (*Edim7*), then in the eighth measure a secondary dominant (*G7♯5*) sets up a jazz II-V-I cadence pattern (*C9 – F7♯5 – B♭9*) in the ninth and tenth bars. Finally, the last two bars have a I – VI – II –V turnaround back to the tonic. Play with a lighter and less-accented swing eighth-note feel. In this example you'll need your bass player friend to walk four-to-the-bar while your left hand comps tastefully. ♫

Bio

"A jazz blues may have more chords, chromatic notes, and harmonic movement than a rock one, but it's still the blues!" says Grammy-nominated keyboardist, composer and arranger **Scott Healy**. Healy has performed and recorded with Tony Bennett, B.B. King, Bruce Springsteen, and Christina Aguilera, and he is also the long-time keyboardist for Conan O'Brien and is currently in the Basic Cable Band on TBS's *Conan*. Find out more at bluedog-music.com.



Scott Healy plays the Ravenscroft 275 virtual instrument.

Hear Scott play the audio examples from this lesson online.

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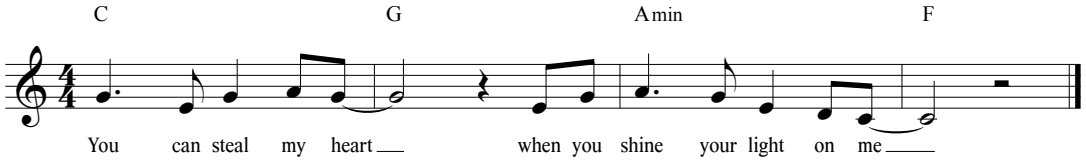
Concepts for Creating Keyboard String Parts

BY CLIFFORD CARTER

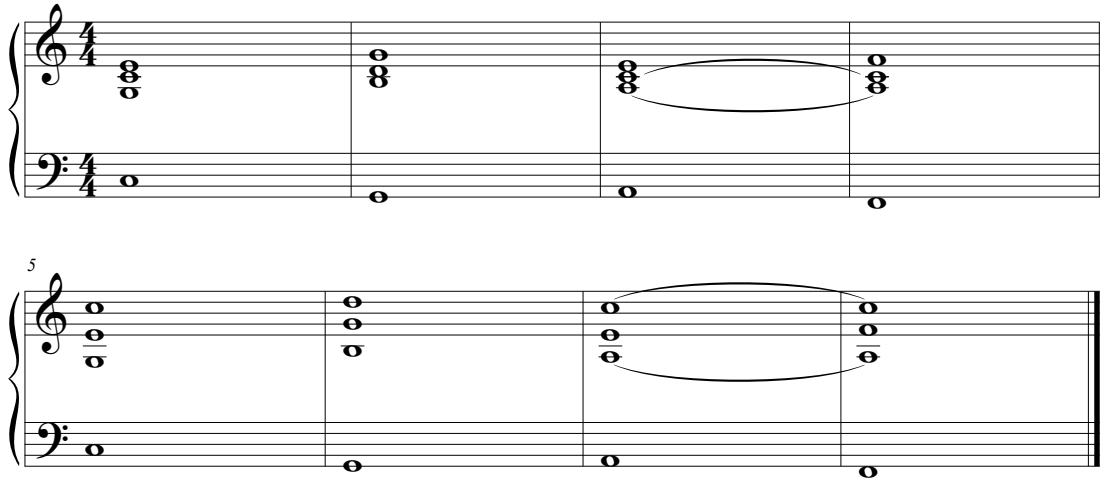
SANDRINE LEE

A STRING SECTION CAN ADD SO MUCH TO A SONG—SOUL, EMOTION, BEAUTY, EXPRESSION, DYNAMICS, AS WELL AS melodic, harmonic, and rhythmic interest. It's true that, just as Aretha Frankin sang, there "Ain't Nothing Like the Real Thing." However, because of practical issues such as economics, keyboard players are often asked to be the string section. Sample libraries and factory presets in modern synthesizers offer a lot of possibilities when keyboardists need to add strings to a track. Actually, even when there are real strings playing, synth strings can be a great addition. From the ARP String Ensemble in 1974 to the Audiobro LA Scoring Strings library today, keyboard players have a plethora of options at their fingertips to provide great string arrangements. Let's take a four-bar melody with chords and look at the various ways you can add string parts from your keyboard.

Ex. 1



Ex. 2

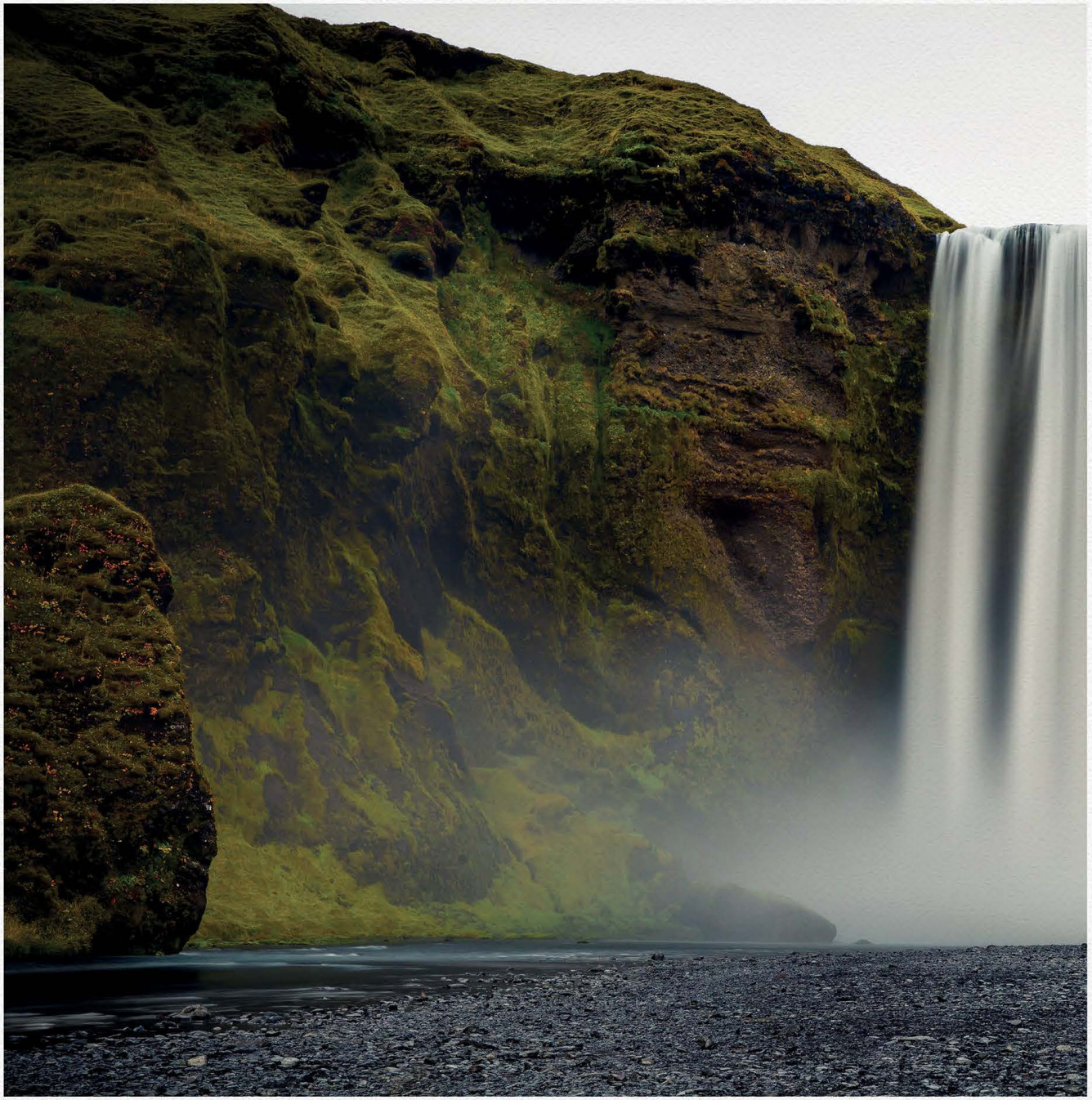


1. Starting Points

Ex. 1 is a 4-bar melody with chords and lyrics that I've created to start building our keyboard string parts around.

2. Background Pads

Ex. 2 illustrates two versions of whole note pads with diatonic triads. Bars 1 through 4 have close-position chord voicings. The notes are close together with no note in the treble clef more than a fourth away from the next note. Bars 5 through 8 are open-position voicings. All of these bars have roots in the bass clef. Playing those roots is optional, depending on how full a sound you want. The choice of register will depend on the sound you are looking for, given the section of the song you are playing. For example, you may want the closed voicings in the lower register early in a song and the open position voicings later in the arrangement. Note that using ties between the common tones is important if you want to create a realistic string performance.



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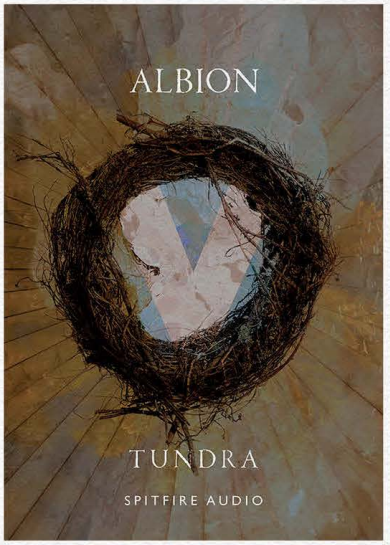
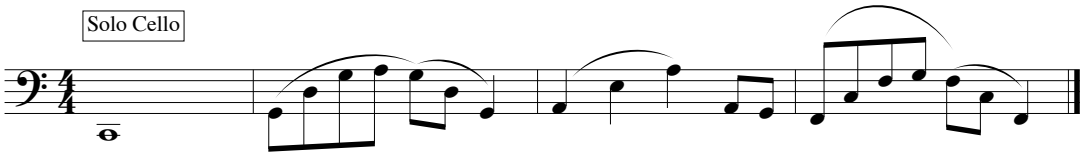
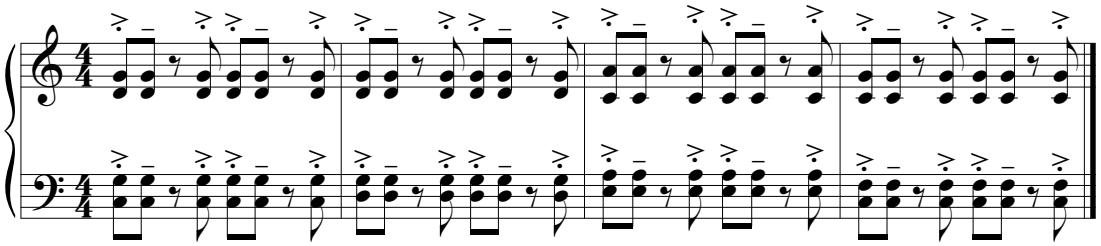


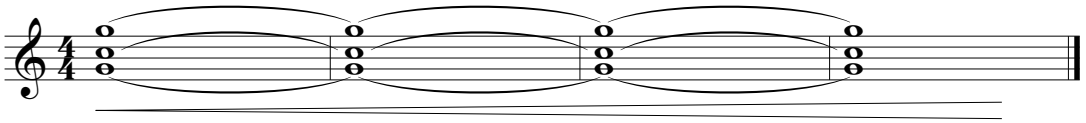
Ex. 3



Ex. 4



Ex. 5



Ex. 6

3. Solo Accompaniment

Let's say you want to introduce strings to a song but in a more intimate way. Try using one instrument instead of the section. **Ex. 3** demonstrates a solo cello playing a melodic bass line. This could be introduced in the second verse of a song or in a pre-chorus and precede a chorus that has a fuller chordal arrangement. You can also combine ideas: For example, you could play the treble clef triads from Ex. 2 and the bass clef ideas from Ex. 3, either by splitting your keyboard using two different sounds or by finding one sound that works well in both clefs.

4. Rhythmic Identity

I also use strings to add to the rhythmic identity of an arrangement. **Ex. 4** has the string section playing syncopated, driving eighth notes. I've found voicings and figures like these to be effective on synths. Sometimes a keyboard player can play a time feel that is hard for live strings to match unless you have players who appreciate pop music and are experienced playing it.

5. Common Tones

Playing notes that sustain through a section of a song is simple but widely used and very effective, as seen in **Ex. 5**. This works because the sustaining tones function differently in each chord. (For example, the *G* is the fifth of the *C* chord, the root of the *G* chord, the seventh of the *A* minor chord, and the second of the *F* chord).

6. Just High Strings

It's not uncommon for a string arrangement to have just high strings (e.g., violins or violins with violas), as seen in **Ex. 6**. Here, the string melody sustains while the vocal is moving, and becomes more active when the vocal sustains (just like the cello part in Ex. 3). ♫

Bio

"Sometimes I think of string parts that real players would play, and other times I experiment with all that is possible with just a keyboard," says keyboardist and composer **Clifford Carter**, best known for his work with James Taylor, Patti Scialfa, Idina Menzel, and others. Find out more at cliffordcarter.com.

Clifford Carter with Idina Menzel: "Everybody Knows"

Hear Clifford play the audio examples from this lesson online.

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THE ART OF SYNTH SOLOING

Prog-Rock's Unsung Master, Eddie Jobson

BY JERRY KOVARSKY

WHEN MUSIC FANS DISCUSS THE GIANTS OF PROGRESSIVE ROCK (ART-ROCK, PROGRESSIVE MUSIC—WHATEVER term you like) the names Emerson, Wakeman, Banks, and Lord rightfully come up. But less frequently do they mention Eddie Jobson. Ask keyboard players, however, and Jobson is always brought up: He is a highly regarded "player's player" and has earned his place near the front of the line. To complement my interview with him this month, I went through his many works looking for some synth solos to cover. Surprisingly (and by Eddie's own admission) he didn't take many, reserving that role for his electric violin and organ. But fear not, loyal reader, we have some great material to cover.

Live, From NY, It's...

Eddie's most "typical" recorded synth solo appears on the *Zappa In New York* album (recorded in 1976, but not released until 1978). The tune was titled "I Promise Not to Come in Your Mouth," but later became known as "Läther." It's a beautiful, somewhat pointillistic ballad, and after a stop-time/floating guitar solo section, the band moves into a rather jazzy feel for Eddie's solo. Played on a Minimoog, the solo is highly melodic and displays Eddie's virtuosic technique as it progresses.

Example 1 shows the opening of his solo, and Eddie paces himself nicely, creating a soaring melody that stands in contrast to Zappa's previous, dense solo. He starts adding some nice color tones, like the ninth on the *B* minor in bar 5, and the jazzy, Lydian mode sound (using the raised 4th/*F*♯) on the *C* major seventh in bar 7. For the *E*♭ major seventh in bars 15 and 16 he moves to more scalar runs, and curiously uses a flatted seventh against the major seventh sound in bar 16, but in passing it works.

Example 2 is taken from the end of his solo and exemplifies Eddie's crisp, articulate chops. All based on a *D*♭ Lydian scale, the repeated phrase turns into a downward crashing run ending on the major seventh. Finish off with a few bass tones with filter sweeps and you have a musical, melodic, and classic solo. Interestingly, Jobson hews closely to this same solo on his recently released *Four*

Ex. 1. Jobson's opening solo from "Läther," from *Zappa in New York*.

Decades career-retrospective concert recording (a 2013 show in Japan) released in 2016. Highly recommended.

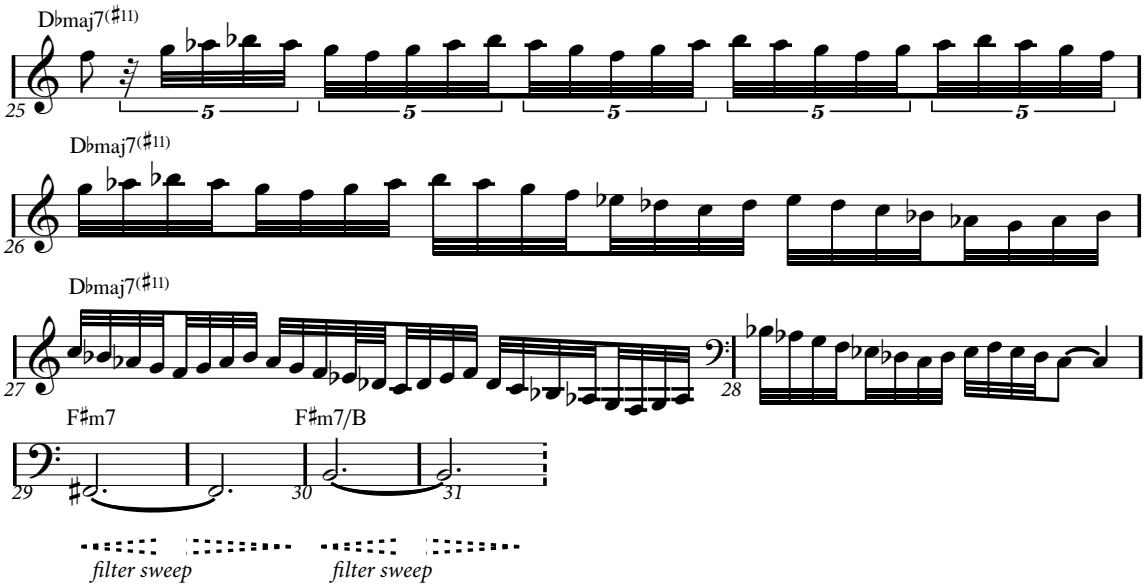
The UK Years

Eddie is most famously known for the band UK, which was short-lived, but created a hugely influential body of work. As mentioned earlier, there are few true synth solos, but plenty of powerful parts, synth tones, and classic compositions. On their first album, *U.K.*, I found a section of the tune "Nevermore" where Eddie and guitarist Allan Holdsworth trade solos for a short spell. **Example 3** shows Eddie's "turn" and he starts by echoing the phrase Holdsworth plays in the first bar. The phrases in bars 3 and 4 are buried under some synth sound effects and are the best approximation I could figure out.

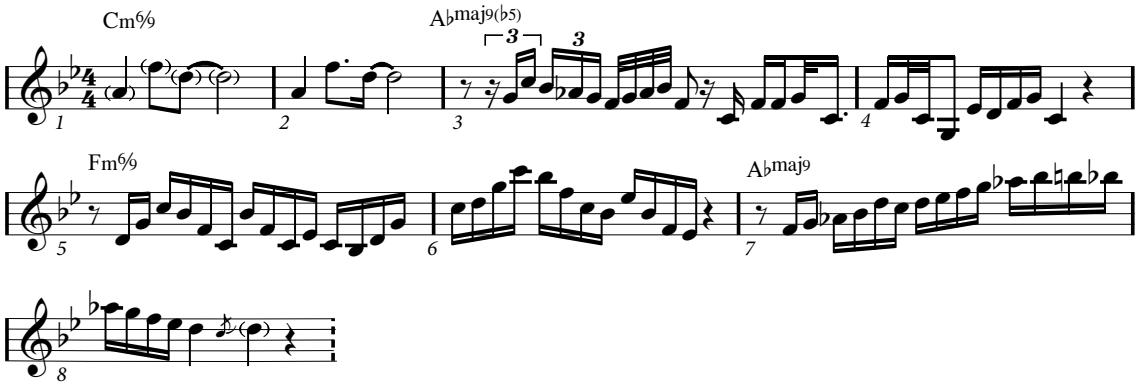
Starting on bar 4 (the *F* minor 6/9) Eddie plays some wonderfully angular lines in fourths, which sound like they come from the modal jazz influence of McCoy Tyner and Chick Corea. It's all *F* Dorian mode, and he uses the same note choices when the chord changes to the *A*♭ major 7th for a Lydian mode flavor. That one *B* natural at the top of the line adds some interesting dissonance, and he ends his phrase on the *D* natural (the sharp 11th) while Holdsworth comes in early over him.

An Extra Gift from Eddie and Me

I asked Eddie if he had a hand-written chart/score for his most challenging composition, "Presto Vivace" from that first UK album. He did not, so I decided to transcribe it and offer it to you as a special online extra. Eddie helped me get the time signatures and note groupings correctly notated, and it's the first time there is an "approved" score for this classic tune. Check it out online and enjoy learning it! ♫



Ex. 2. The ending of Jobson's "Läther" solo, featuring some virtuosic runs.



Ex. 3. A short solo "trade" from the tune "Nevermore" on the first UK album.

Notation of the full "Läther" solo and the complete "Presto Vivace" is available online for further study.

keyboardmag.com/december2016

Wavetable Design

EMULATING THE CZ-101 WITH XFER RECORDS SERUM

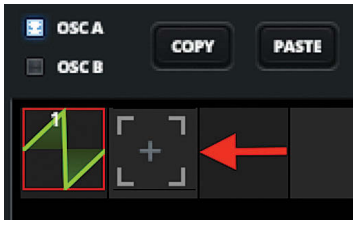
BY FRANCIS PRÈVE

THIS MONTH AND NEXT, WE WILL EXPLORE WAVETABLE DESIGN USING XFER RECORDS SERUM'S SOPHISTICATED EDITING tools. To begin, we'll emulate the character of the classic Casio CZ-101 and its unique approach to waveshaping.

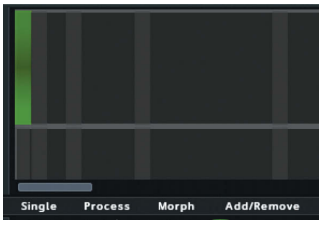
Back in 1986, the CZ-101 became a huge hit among keyboardists, thanks to its combination of affordable digital synthesis and multitimbral operation. Priced around $500, its FM-like method for waveshaping, called Phase Distortion, allowed users to smoothly morph from a sine wave to one of eight selectable waveforms, including classics like sawtooth, square, and pulse.

Xfer Serum's wavetable design tools make light work of this task. So to get you started on creating your own wavetables, we'll go over the essentials of creating a sine-to-sawtooth morph in Serum.

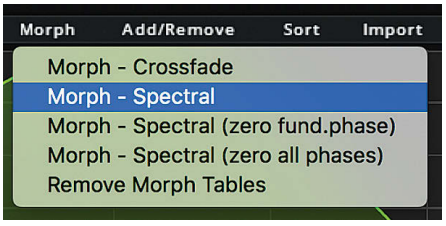
Step 1. Starting with Serum's Init preset, click on the pencil icon next to the default sawtooth to open the wavetable editor.



Step 2. The sawtooth wave appears in the first index. Clicking on the second index will copy the original sawtooth to that position.



Step 3. Re-select the first sawtooth index (3a), then, in the harmonic editor at the top of the window, raise the level of the first bin to 100% (3b). This will transform the first index to a single sine wave at the fundamental frequency (3c).



Step 4. To create a wavetable that morphs from sine to sawtooth, click on the Morph pull-down window and select Morph - Spectral. This will interpolate between the sine and sawtooth waveforms, allowing you to transition smoothly between the two, just like on the CZ-101.

Step 5. Returning to the front panel of Serum, the WT Pos (wavetable position) knob adjusts the morph and allows you to modulate the waveform with envelopes and LFOs.

ProTip. Because the CZ-101's Phase Distortion method also imparted a lowpass-filter-like quality to the waveshaping, you can add authenticity to this emulation by modulating Serum's frequency cutoff, as well.

Experiment with creating additional wavetables with waveforms such as square and pulse, because next month we'll be returning to Serum's wavetable editor to emulate PPG-style wavetables, which is a more complex process.

SOUNDCLOUD Audio examples.

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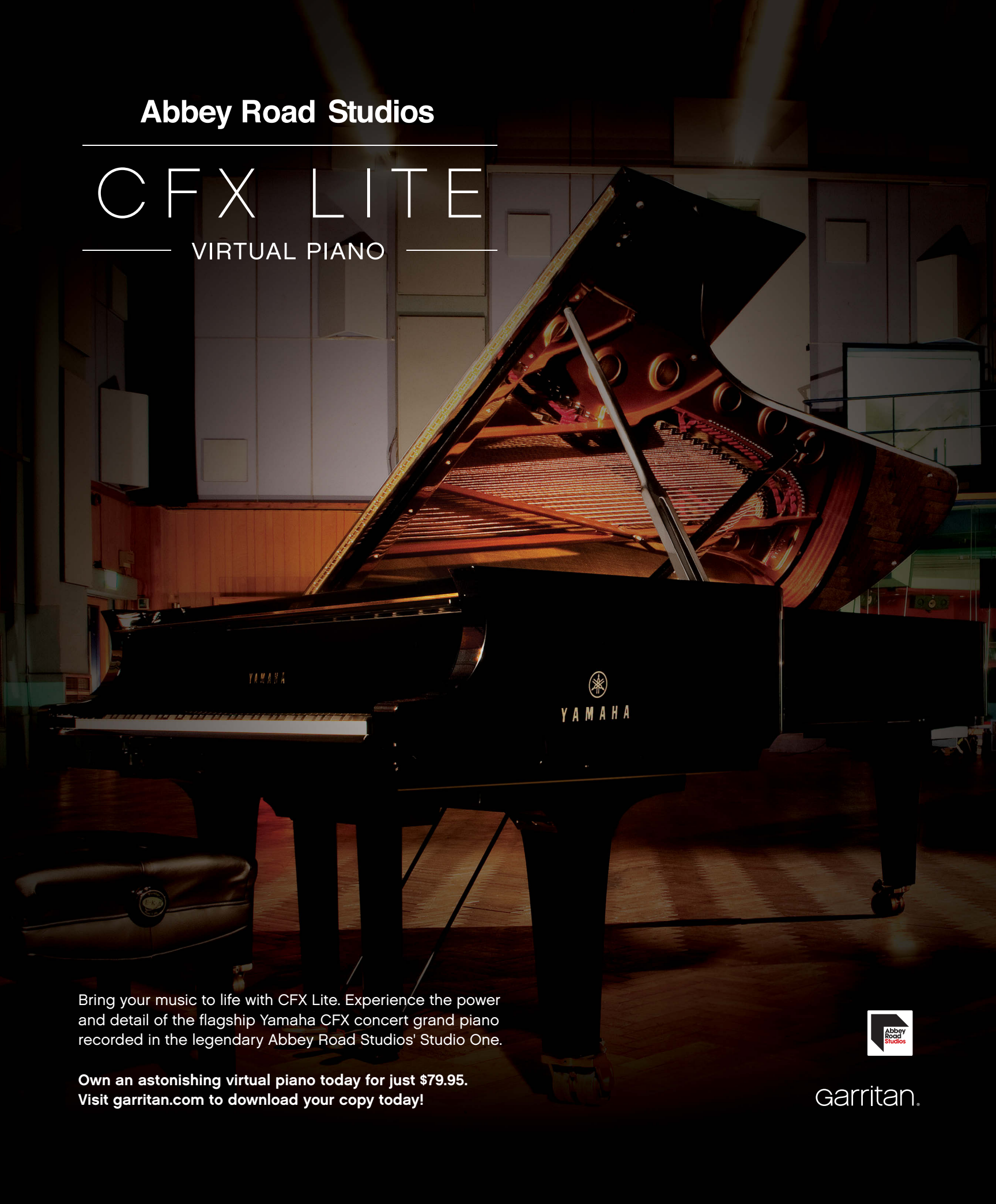
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TOM OBERHEIM TVS-PRO

BY GINO ROBAIR

WHEN TOM OBERHEIM RE-ENTERED THE SYNTH MARKET IN 2009 BY REISSU-ing his classic SEM, he adhered to the original design and sound quality as much as modern parts procurement would allow, while adding contemporary features (MIDI-to-CV converter, note-priority modes, a noise source) that expanded the module's usefulness without jeopardizing the timbre that made it so popular.

Snap Judgment

PROS Two SEM modules. 2-track, 16-step sequencer. Several keyboard performance modes. Smooth keyboard action with velocity and aftertouch. Mini-jack patch points. MIDI I/O.

CONS Pricey. Fine Tune knob too close to Mod wheel. No traditional note-priority settings.

Bottom Line

The sound of an Oberheim Two Voice at a reasonable price and with features unavailable in vintage models.

$3,495
tomoberheim.com

I was able to review the new SEM against my own pair of vintage modules, and to match the sound of the originals to a very high degree (keeping in mind that any two analog synths that are 40 years old will to differ from each other slightly). Priced between $899 and $1,199 (depending on the feature set), these new SEMs proved to be a smarter buy for musicians who craved authentic Oberheim sound and wanted an instrument they could *use*, rather than pay collector prices for a museum piece.

Of course, Oberheim fans immediately began requesting a return of the classic SEM-based keyboards—the Two Voice, Four Voice, and Eight Voice. The Two Voice Pro (TVS-Pro), as it is now called, is first in a proposed line of these instruments. And like the SEM, it is more than a simple '70s redux: Oberheim added a range of features that were unavailable on the original, but that modern players expect, while maintaining the vibe of an earlier era.

Yesterday...

As its full name implies, the Synthesizer Expander Module of 1974 was originally designed to be an accompanying voice for monosynth users. Featuring two VCOs (each with sawtooth and pulse wave choices), an LFO, a resonant 2-pole multimode filter, and two 3-stage envelope generators, the SEM could be used to fatten up the sound of your main keyboard or be driven by the Oberheim DS-2 digital sequencer, so you could use your monosynth for bass or lead duties. The SEM's 2-pole filter response also gave the module a distinctive timbre at a time when the Moog and ARP 4-pole sound was prevalent.

A year later, Oberheim grouped SEMs together with a polyphonic scanning keyboard to create the Two Voice and Four Voice, the first analog polysynths with independent voltage-controlled voices. These stacked SEMs were capable of creating massive tones that drew the attention of major artists.

But the strength of the system also proved to be its biggest drawback: Like all analog synths of the time, each SEM voice had to be individually tuned and programmed—a time consuming affair. A pro-

gramming module was eventually introduced for the 4- and 8-voice systems, allowing you to save and recall some module parameters. Then Sequential Circuits introduced the Prophet-5, which could control and store analog parameters using microprocessors, forcing Oberheim and other manufacturers to follow suit with their subsequent instruments.

However, Tom recently told me that the SEM-based instruments remain his personal favorites from the Oberheim line, for the very reason that each voice was a fully independent synthesizer "with a life of its own." As far as he's concerned, that's the basis for their rich tone and musicality.

...and Today

Consequently, at the core of the TVS-Pro is a pair of independent SEMs—one for each voice. And like the reissued modules, the SEM voices enhance the mid-'70s design, in this case with the addition of two VCAs (one to provide velocity control over the amount of Envelope 1 modulation of the other VCA and another for Envelope 2 modulation of the filter). Again, these provide extended functionality without altering the basic sound of the SEM.

The TVS-Pro's *raison d'être*, however, is the implementation of the modules into a keyboard-based performance system, with the ability to set up and store keyboard, controller, and sequencing functions. So, parameters such as MIDI channel, pitchbend range, velocity curve level, keyboard mode, and split points are retained when you cycle the power. But as with the original Two Voice, there are no patch save/recall capabilities for synth voices—by design; Oberheim invites you to *explore* the sonic capabilities.

A surprising and welcome improvement of the TVS-Pro over the original Two Voice is a significant reduction in size and weight. Gone is the heavy wooden road case of the '70s, in favor of a metal chassis with wooden endcaps that feels solid, overall.

The 3-octave keyboard's action is robust and smooth under the fingers and offers velocity and aftertouch control over the analog sound as well as MIDI. The Bendbox, to the left of the keyboard, provides pitchbend and modulation wheels, a 1/4" headphone jack (with volume control), and an independent vibrato LFO (patched to both voices) with knobs for frequency and depth/assignment. (The latter determines whether you introduce vibrato using the mod wheel or key pressure/aftertouch.) There is also a section here for transposing each voice up or down two octaves when using the keyboard for control.

The Bendbox also includes a Fine Tune control to alter the pitch of all four oscillators (e.g., both voices) and the VCO2 Detune knob that subtly changes the pitch of VCO 2 on both modules, to beef up the sound. Because the Fine Tune knob is just above the mod wheel, care must be taken so that you don't accidently hit it. (Speaking of tuning, the TVS-Pro provides a 440Hz tone for calibrating the oscillators.)

Along with Unison and Split keyboard settings, the TVS-Pro provides several keyboard-control modes. You can select whether or not a new note triggers envelopes, alternate between SEM A and B with each new key press (Polyphonic Two Voice Toggling, or Rotate mode), or use SEM A First mode, which only triggers SEM B when a second key is held down. You can further customize the instrument by selecting one of the 8 velocity curves for the keyboard as well as setting the range of the pitchbend wheel (from 1 to 12 half steps). Unfortunately, upper- or lower-note priority modes are not available.

Sequencing

The TVS-Pro's Mini-Sequencer lets you program up to 16 steps for each voice, with the ability to introduce rhythmic variety by adding 2-, 3-, and 4-gates per step (called Ratcheting). I immediately programmed some sequences with contrasting ratchet rhythms in each voice, and then used the onboard mixer to hard-pan the voices to the TVS-Pro's stereo outputs.

Moreover, as a sequence plays, you can easily alter the number of steps or jump to a new sequence (when the previous sequence ends) without stopping. The programmer stores 50 sequences, and chains of sequences can be assembled into songs and saved into one of 9 memory slots.

As you assemble a song, the individual sequences can be repeated and transposed as desired.

On the review unit, the sequencer notes could only be selected using the pitch knobs above each step. An upcoming firmware update (available this month) will add keyboard note-input, which will make sequencing a lot quicker and more intuitive.

Outside the Box

The ability for the TVS-Pro to play each SEM individually from the sequencer, or triggered from the keyboard or sample-and-hold generator. suggests a number of performance options: You could use the sequencer to control SEM A while you play a bass or lead with the other module: Then select KeybTrans to transpose the sequence in real time by playing notes on the keyboard. Another option is to assign a split point anywhere on the keyboard and play SEM A with the left hand and SEM B with the right.

Because the TVS-Pro is semi-modular, you can further extend its sonic potential by utilizing the 56 mini-jack patch-points on the top panel. With these, you can introduce modulation paths between the two SEM modules, expand the control of the sequencer and keyboard over the voices, and integrate external synths (such as a Eurorack system) into any of the performance scenarios above. Each VCO (two per SEM voice) has independent outputs for sawtooth and pulse waveforms, an LFO, a pair of envelopes, and for the bandpass and highpass/lowpass filter. There are also voltage-control inputs for each VCO, as well as the filters, envelopes, LFOs and VCAs.

You can also take CV outputs from the mod wheel, vibrato LFO (controlled by mod wheel or aftertouch), velocity A and B, aftertouch, and the sample-and-hold circuit, as well as CV and gate signals from each sequencer track. The rear panel provides 1/4" audio inputs (to process external sounds through the filters) and CV and gate outputs for each SEM voice, in addition to standard MIDI In, Out, and Thru connectors.

The TVS-Pro handles basic MIDI messages from the keyboard and sequencer on one or two channels, depending on your playing/sequencing requirements, and the sequencer can sync to MIDI Clock. As a result of user feedback, new features are being added through firmware updates. In addition to the aforementioned ability to program the sequencer from the keyboard, the next firmware update will allow you to put the machine in Local Mode, so you can use the TVS-Pro's keyboard to play 8 voices on a polyphonic synth over MIDI while using the Mini Sequencer to control the internal SEMs—yes!

The Next Vintage

Whether you're talking price or design, the TVS-Pro is not a cheap instrument. Sure, $3,495 seems high for a 2-voice analog synth and sequencer in an era when major manufacturers are pricing their own analog synths well below a grand. Yet despite the name recognition, Tom Oberheim is not a major manufacturer, nor is he working at that scale. You're paying for a fully professional instrument, built and tested in California, that offers the classic Oberheim sound. This is the real deal, not an approximation or clone.

If you take into account what you're getting for the price—two MIDI-capable SEMs with patch points ($1,199 each); a high-quality 3-octave keyboard (with velocity and aftertouch); the Bendbox features; programmable controls; the Mini Sequencer; MIDI connectivity; and a case with power supply and internal connections—you will see the value.

For me, the main draw of the TVS-Pro is first and foremost its sound: Two SEM modules that provide the palette of desirable Oberheim timbres—thick bass tones, complex and buzzy leads, and chirpy percussion just for starters. Then there is the user interface—a classic combination of a 3-octave keyboard and dedicated controls for every parameter, to mold sounds in an organic and intuitive way while playing. Just as significant, the patch panel and MIDI I/O let you integrate the TVS-Pro into any studio and stage setup and is particularly inviting for modular users.

In short, the TVS-Pro is a long-term investment in a quality instrument that will long outlive every Oberheim software emulation you'll ever own, as well as the computers they run on. ♫

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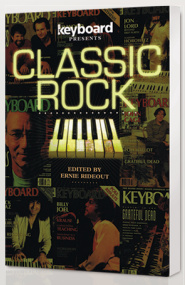

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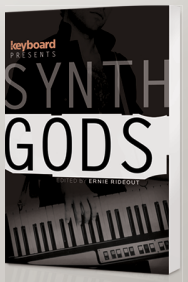

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WAVES
Electric 88

BY STEPHEN FORTNER

IF YOU'RE LUCKY ENOUGH TO HAVE A REAL RHODES IN YOUR STUDIO, YOU probably have only one; the years have given it a certain tonal profile, and though there are many like it, *this* one is yours. You EQ, compress, and process it to fit the task at hand, because that yields a lot more character than calling up a workstation patch.

That's the philosophy behind the creation of Waves Electric 88, a virtual instrument based on samples of a single "road-worn" (their words) electric piano. As opposed to trying to eliminate any key-to-key differences in response, Electric 88 embraces them. Nonetheless, this VI's raw materials and parameters offer a wide range of tonal possibilities all within the instrument's interface.

Central to Electric 88 are four mixable sample sets—the main tone, the sparkle of the tines, key-release samples, and mechanical noises. If you know your EPs, dialing in any model from a Mk I to a Mk V is super-quick. The Formant knob is described as adding harmonic qualities of higher or lower notes, as though you'd transposed the piano; to my ears it sounds more or less like a tilt EQ.

Next on the main panel is a one-knob compressor that really nails that Hall and Oates, comping-straight-eighths kind of punch. An amp simulation (ostensibly a Fender Twin) lets you crank up the drive from a day's stubble to full fuzz and offers dynamic and condenser virtual-mics. A 3-band tone control rounds out the sculpting tools, and it's warm and non-antiseptic.

The effects rack has tremolo, auto-pan, phaser, chorus, and reverb. The Rate knobs can set tempo-synced time divisions (including triplets) or free-running times in Hz. These effects sound *good*, I suspect in part because they contain DNA from other Waves plug-ins.

Overall, Electric 88's sound is beautiful, with factory presets that showcase classic rock and R&B tones ("All Roads Lead to Cyprus" and "Easy Street" are favorites here), effects-drenched outliers in the Creative bank (try "Dreams of Glass" for some Vangelic meandering), and much in between. Throughout, Electric 88 can bark angrily in response to extreme playing or lilt and sing at moderate ones. A ton of dynamic range is on tap, unless you purposely mix and compress it away. Is there anything to find fault with in the samples themselves? No. There's a fidelity and fullness here I'd expect from keyboard libraries that take up more room on both your hard drive and your credit card statement.

In fact, the audible non-linearities are more subtle than Waves' use of the term "road-worn" leads you to expect. Can Electric 88 sound like a quirky, beat-up Rhodes? Sure. Can it sound like a well-maintained studio or rental unit the likes of Donald Fagen or Richard Tee would ask for by serial number? Certainly, all while preserving the touted vintage character.

This is a *keyboard player's* virtual EP, with the musically useful controls right in your face. It could work quite well as the only "tine EP" in your software-instrument collection, but at this price, you might just as well impulse-buy it as another color on your palette. Like I did, you'll soon discover you got far more than you paid for. ♫

Snap Judgment

PROS Large and excellently recorded electric piano sample-set with mixable sample layers. Killer effects cover everything you need and nothing you don't. Very easy to dial in the sound you have in mind.

CONS The term "road-worn" doesn't do justice to its tonal and stylistic range.

Bottom Line

A stellar sounding, go-to-worthy virtual EP cleverly masquerading as a "character" plug-in

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TIPS & TECHNIQUES

From the Pros

1 It's a balancing act

On your initial pass of a mix, try limiting all your decisions to level and panning. You'll find that your mix will come together much faster if you balance all the sounds before you reach for any plug-in or outboard gear. Also, where you put a sound in your stereo field will generally influence how you want to EQ or compress it—so definitely make that panning decision beforehand.

2 Try bussing - it'll get you around

Send related groups of audio to auxiliary tracks (commonly called busses, in this case). For instance, make busses for your drums, musical information, vocals, and effects. That way you can make subtle macro tweaks across a range of instruments, thereby getting the most out of EQ, dynamic, or harmonic-distortion decisions. If it's good enough for top mixers like Michael Brauer and Dave Pensado mix, then it's worth a try.

3 Working in a new space?

Listen to some of your favorite tracks in the room before you start working, to know how frequencies translate in that space, so you can adjust your workflow when you start tracking. This will help you create tracks and mixes that translate well when delivering to your client.

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VIRSYN Addictive Pro for iPad

BY FRANCIS PRÈVE

VIRSYN'S IMPRESSIVE LINE OF IOS SYNTHS IS SOMETHING OF AN INSIDER'S secret for iPad-based keyboardists and producers. Tera, Cube, Poseidon and the original Addictive Synth are all unique synthesis tools that provide rich sonic resources. Yet, for the casual user looking for classic analog sounds or common dance-music textures, they may be a tad too innovative.

That's why Addictive Pro—an expanded version of the original Addictive Synth—is worthy of every iPad keyboardist's attention. It builds upon the original paradigm of dual additive oscillators, each with its own graphically editable filter curve. The oscillators are based on classic additive synthesis techniques with the added benefit of being able to draw the harmonic spectrum with your finger, which is incredibly intuitive in practice. We've seen this before on a few other iOS synths, but VirSyn does a great job of keeping the features succinct and uncluttered, inviting immediate experimentation.

The filters, however, are utterly next-level, as their curves can also be drawn with your fingertip. This allows for some tricky acoustic modeling effects that are ably demonstrated by the factory collection of preset curves with names like String Body and Combo, as well as a handy selection of vowels. While these are great starting points for newcomers, the ability to design your own filter curves in real-time is an impressive effect, considering how fluid and responsive the software is—even on an older iPad 2. Moreover, this app is extremely light on CPU, which is wonderful if your requirements include heavy polyphony and long release times.

Since this is the *Pro* version of the original Addictive Synth, there are several new amenities that are worth highlighting. For example, the modulation routings are both more extensive and much easier to apply, as nearly every section (oscillators, filters, amp and a few noise options) includes its own dedicated LFO and ADSR envelope. This makes whipping up complex, evolving textures a breeze if you have a bit of experience with synthesizer basics. If not, there's a nifty dice icon that intelligently creates random presets that don't sound like sirens or frogs.

In addition to the added modulation features, there is a new effects section with seven processes in series—distortion, EQ, phaser, flanger, delay, chorus, and reverb. Because of the fluidity of the Addictive Pro interface, it would seem natural to be able to drag the effects around and re-order the series, but this isn't possible in the current version of the app.

Nonetheless, because so many of the presets ably demonstrate the complex and often huge sound capabilities of the app, it's a shoo-in for iPad-based keyboard rigs. And for on-the-go coffeshop sketches, the app provides a built-in arpeggiator with a ton of step-sequencing options and dual X-Y pads that morph the factory presets in an impressive fashion.

Readers may recall that I loved the original Addictive Synth (which is still available for $6.99), but the Pro version is an absolute steal at $19.99. While its features are extremely sophisticated, the ability to draw harmonics and filter curves in real-time while sustaining a fistful of notes is an unparalleled experience, especially if you're looking for modern synth apps to use on a somewhat older iOS device. Kudos to VirSyn for advancing this app while keeping it both affordable and compatible with a wide range of iPads.

Snap Judgment

PROS Dual additive oscillators. Touch-based harmonic control. FM, sync, and ring mod. Two filters with user-designable curves. Extensive modulation tools for each synthesis section. Dual X-Y pads.

CONS Effects chain cannot be reordered.

Bottom Line

A great additive synth, made even better.

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virsyn.net

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KORG

microKorg S

BY FRANCIS PRÈVE

THERE AREN'T MANY MAINSTREAM KEYBOARDS THAT HAVE REMAINED IN production nonstop for 14 years. So the fact that the microKorg is still one of the top-selling mini-synths since its 2002 introduction is a testament to both its sound and its straightforward approach to bringing synthesis and vocoding to the masses. What's more, being such a handy synth, the microKorg has also found its way into the rigs of music legends ranging from Jean-Michel Jarre to Nick Rhodes.

Over the course of its remarkable run, Korg has occasionally updated the product with additional amenities, while leaving the core synthesis engine—virtual-analog modeling based on the MS2000—unchanged. The latest model, the microKorg S continues the keyboard's evolution in a manner that will bring its useful sound to yet another generation of budding synthesists, while providing a 4-voice synth with the classic configuration—dual oscillators and noise, a resonant multi-mode filter, two LFOs and envelopes, built-in modulation effects, delay, EQ, and an arpeggiator.

The original microKorg pioneered the "big knob" approach to selecting presets grouped by genre. In fact, it's such a great idea that other manufacturers have cribbed it. The new S version provides more memory, including 64 user programs, than the previous models, and Korg's latest batch of 64 factory presets really nails today's sounds, covering everything from trance and hip-hop to vintage and retro. Standouts include ClaviPhone (trance), Robot Mouth (hip-hop/vintage), and Major Lead (retro), along with many useful vocoder presets. Moreover, you can save eight of the programs you use most to the Favorite Select area.

The microKorg's integrated four-band vocoder introduced a generation of keyboardists to the retro-modern sound of robot voices and it's still part and parcel of the microKorg S. The new presets definitely keep that trend moving forward, thanks to its genuine ease-of-use and included gooseneck condenser microphone. That said, since the engine remains the same, the results do too. Even now, it's great for old school Kraftwerk jams and Cars covers, if vintage vocal effects are your thing.

Other than its Apple-white paint job and sustainable wood endcaps, the biggest change in the microKorg S is its new integrated 2.1 speaker system that does the trick for both bedroom and tour bus jamming. A built-in bass-reflex port helps project the synth's low end. While some may prefer headphones (if only for the privacy factor), the speakers are a welcome addition that probably should have been added years ago, but hey, better late than never.

While the new features on the microKorg S probably won't have current users standing in line all night to upgrade as if it was an iPhone, the addition of speakers and a new bank of fashionable dance presets go a long way toward keeping it fresh and relevant. There's a reason why the microKorg has remained a staple in keyboardist's rigs: It combines a classic and versatile sound, integrated vocoding, and portability in a way that no other synth has matched to date, and that's quite an achievement. ♫

Snap Judgment

PROS Classic microKorg sound. Bulit-in vocoder. Integrated stereo speakers. Expanded memory includes 64 new dance-oriented factory presets and 64 additional user memories. Battery powered.

CONS No USB MIDI.

Bottom Line

The microKorg is a classic for a reason.

$499
korg.com

The microKorg S accepts condenser and dynamic mic input, as well as line-level signals.

Download our Loops 6-pack from this review.

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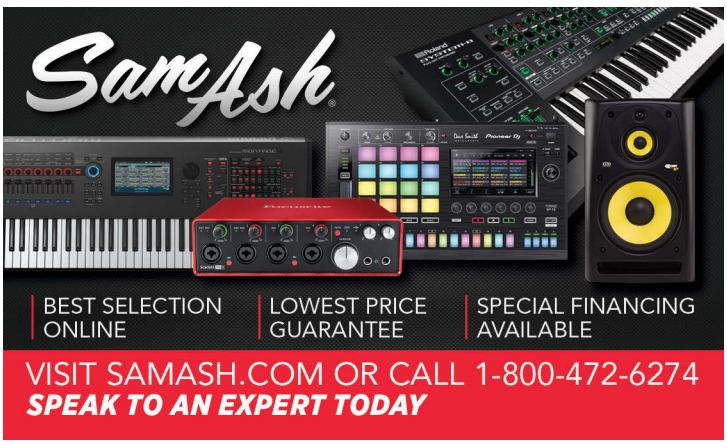

5 WAYS TO ENHANCE YOUR Soft Synth Mojo!

BY FAB DUPONT

Producer **Fab Dupont** works out of Flux Studios (New York City), where he produces and mixes records for David Crosby, The Dø, J.Lo, and others. He also founded puremix.net, where you can learn from the pros how to make better sounding music. Find out more at fabulousfab.com.

DESPITE WHAT PURISTS MAY SAY, SOFT SYNTHS ROCK! AS THE PROUD OWNER of way too many hardware keyboards (including an Oberheim OB-Xa; a Yamaha CS-80 and SY1; a Moog Prodigy, SubPhatty, and *two* Polymoogs; a Sequential Circuits Prophet V; a Roland Juno-60 and RS-09; a Korg VC-10, MS-10 and MS-20; an Octave Cat; *three* Fender Rhodes pianos and a PianoBass; and a Wurlitzer 200A, among many others), I still use virtual instruments on every project. They are great counterparts to and often replacements for the "real thing," especially when you explore the five points below.

1. Ditch the Presets

Virtual-instrument presets are like Ikea furniture: They are almost what you need and they kind of fit. So instead of endlessly browsing for that miracle sound, try thinking of presets as a showcase of what your soft synth can do. Once you find one you like, turn off all of the built-in effects and get to the bottom of what made it right for you. Go for filter cutoff and resonance first. Once the basic sound is a better fit for your song, add the effects back in one by one. Or replace them by using high-quality, third-party reverb, delay, and modulation plug-ins.

2. Learn a Hardware Synth

If you're having a hard time figuring out what does what on your favorite plug-in's interface, buy, borrow, or rent a simple hardware synth—preferably an analog one with knobs such as the Arturia MiniBrute or equivalent. It will give you a visceral experience of each function so that you can learn how they feel. My first foray into hardware was with a Moog Prodigy. It taught me signal flow and about the subtle interactions between all the controls. Every synth since then has felt like a more extended and complicated version of that original instrument.

3. Map a Controller

Once you go back to software counterparts after using hardware, you may experience a certain disconnection from the instrument. That is the number one problem with software. Fortunately most modern MIDI controllers let you easily map knobs to whatever function you like. Use that feature to recapture some of the tactile feeling of the hardware synths, and escape the urge to revert to preset browsing. Start with parameters such as Cutoff, Resonance, Attack and Release and go from there to match your style of editing. Make sure you map the on/off button of the soft synth's effects, too!

4. Keep Your Plug-in Folder Lean

Having 40 different plug-ins from 15 different companies can stifle your workflow. Find a plug-in that speaks to you and dive deep into it. Own it. Make it do tricks. Then move on to the next one. You could start with simple, easy-to-use synths like FabFilter One or Tal U-No-LX, then move up in complexity to u-he Diva or AIR Vacuum Pro and finish off with KV331 Audio SynthMaster or Native Instruments Massive.

5. Add Some Air

When trying to mix soft synths with acoustic instruments, you might find that they don't blend easily. One way to get around that problem is to play every problematic synth track through a speaker of some sort (e.g., guitar amps or control room speakers) and record the result, using a quality microphone, back into your arrangement. You may discover that the added "air" will help you blend the synthetic sound with other miked sounds more easily. Playing with mic distance will give you additional levels of variation over the original in-the-box sound, as well. ♫

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